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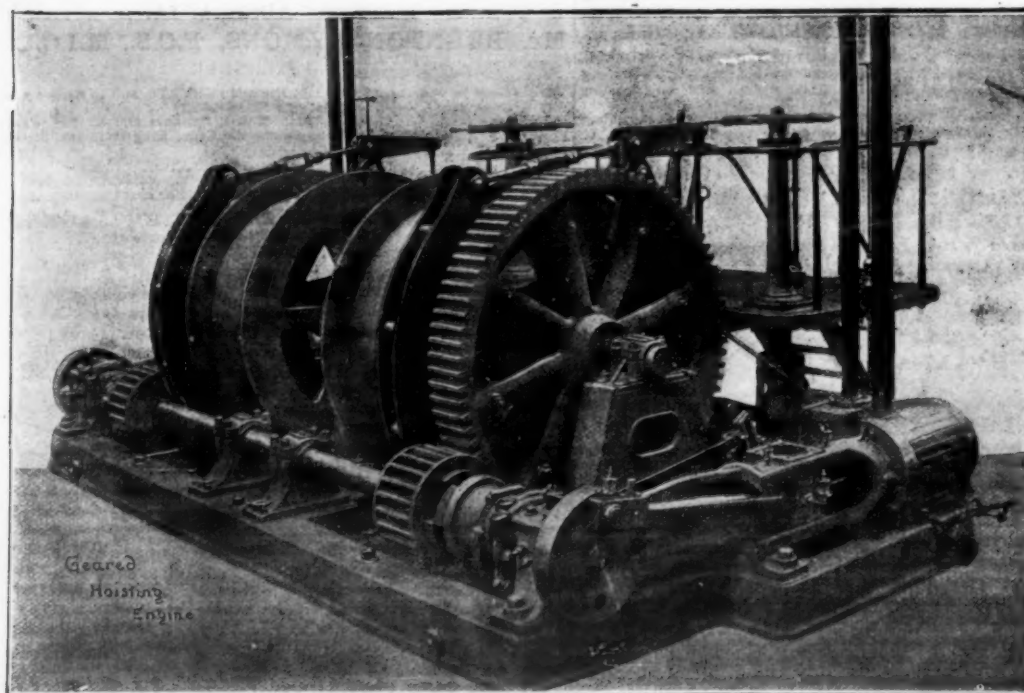
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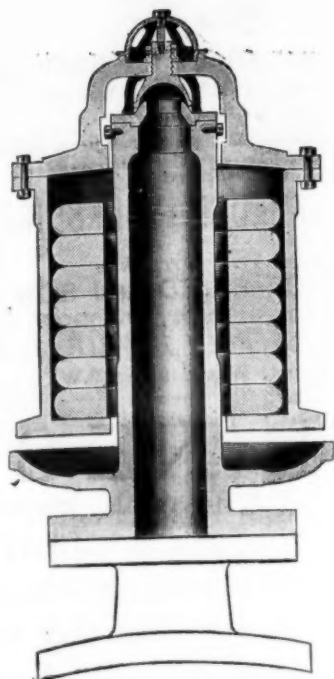
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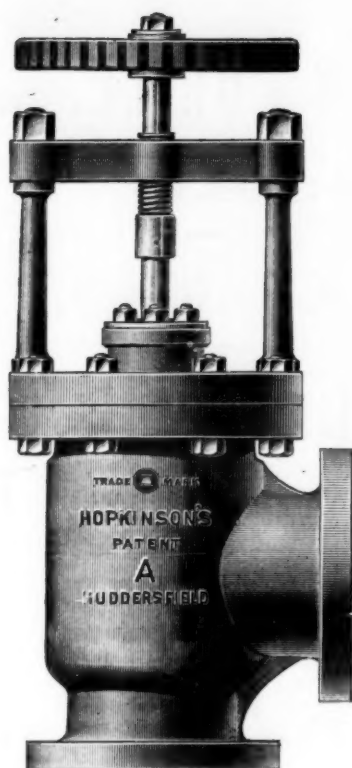
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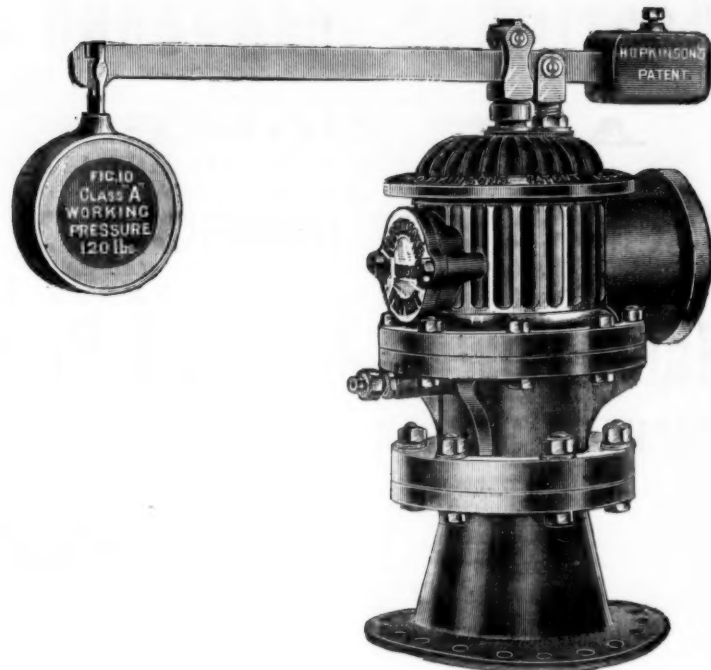
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HOPKINSON'S PATENT DEAD-WEIGHT SAFETY VALVE. FIG. 20.



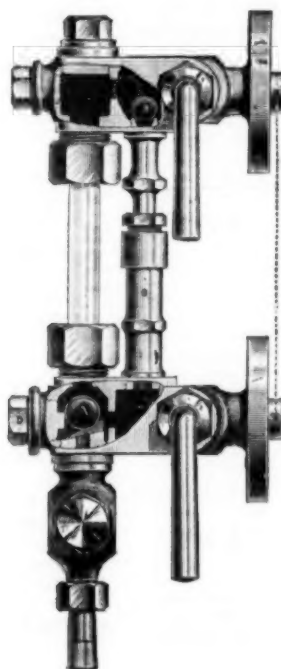
HOPKINSON'S PATENT "TRIAD" JUNCTION VALVE. FIG. 100.



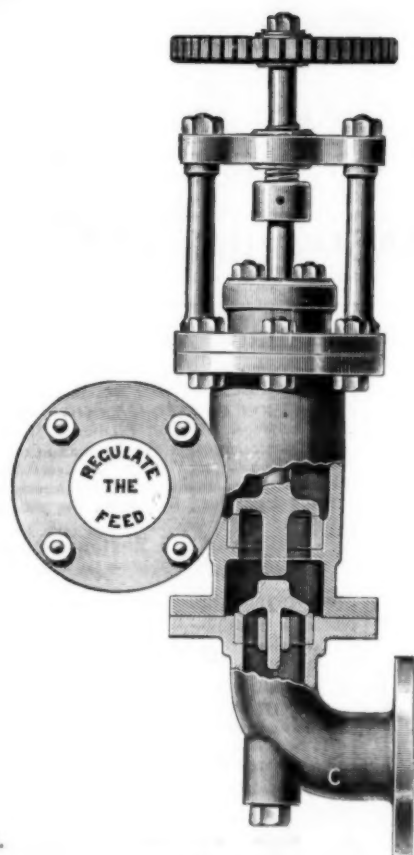
HOPKINSON'S PATENT "DUAD" SAFETY VALVE. FOR HIGH STEAM AND LOW WATER. FIG. 10.



HOPKINSON'S "OWN MAKE" STEAM GAUGE. FIG. 401.



HOPKINSON'S PATENT "ABSOLUTE" WATER GAUGE. FIG. 644.



HOPKINSON'S PATENT ACCESSIBLE CHECK-FEED VALVE. FIG. 132.

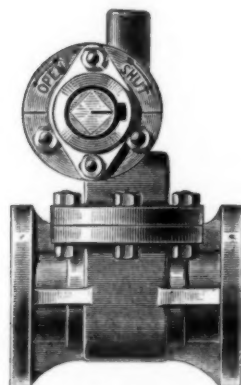
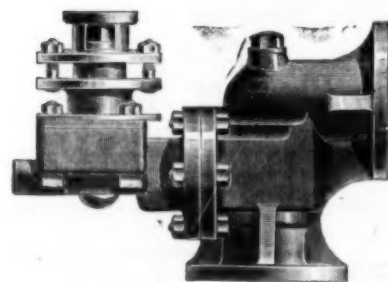


FIG. 254.



HOPKINSON'S PATENT PARALLEL SLIDE BLOW-OFF VALVES.—FIG.

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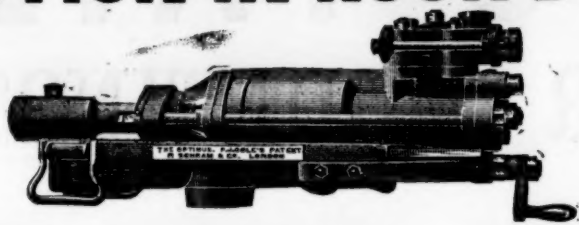
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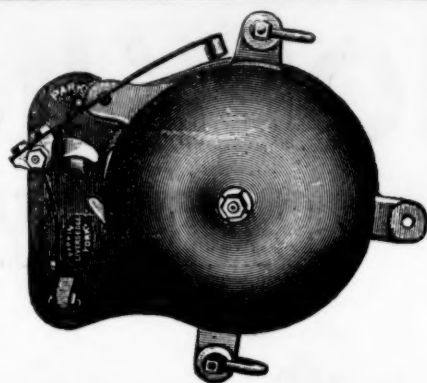
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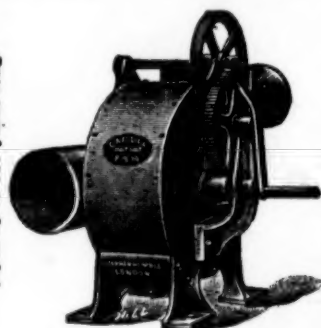
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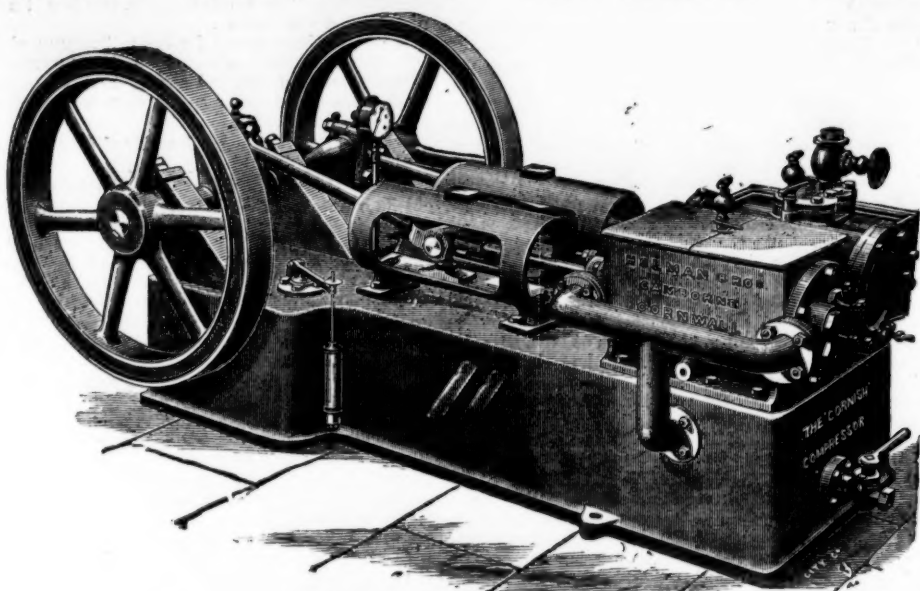
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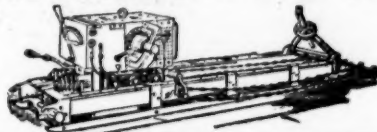
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SAMPLES AND PRICES UPON APPLICATION.
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NEW PATENTS.

LIST of APPLICATIONS for New Patents relating to Mining Metallurgical, Engineering, Railway and kindred matters, specially compiled from official sources for the "Mining Journal" by Messrs. Rayner and Company, Patent Agents, 37, Chancery Lane, London, W.C., who will forward all information regarding them free on application.

- 15129 Thomas Pitt and Arthur Johnson, The Priory, Hereford.—A non-exhausting air engine.—August 12.
- 15130 John Smith, Fairweather, Wrotham, Kent.—Improvements in rotary engines.—August 12.
- 15144 Alfred Sheddock, 11, Southampton Buildings, Chancery Lane, London.—Improvements in apparatus for separating and concentrating ores and other materials in the pulverised or granular state.—August 12.
- 15188 Robert Richardson, 7, Bonnytown Terrace, Govan, Renfrew.—Direct-acting steam pumps.—August 13.
- 15221 James Taggart Halsey, 45, Southampton Buildings, Chancery Lane, London.—Improvements in steam engines.—August 13.
- 15238 Oliver Imray, 15, Southampton Buildings, Chancery Lane, London.—An improvement in water tube boilers.—August 13.
- 15283 George Johnston, 87, St. Vincent Street, Glasgow.—Improvements in steam boilers.—August 14.
- 15291 Wilhelm Lohndorf, 343, High Holborn, London.—Improvements in furnaces for locomotive, marine, and other steam generators.—August 14.
- 15296 Moses Beckley and Charles Emile Boquet, 69, Becklow Road, Shepherd's Bush, London.—An automatic regulator of feedwater to steam boilers.—August 14.
- 15329 Walter Samuel Payne, Commercial Street, Halifax.—Improvements in oil motor engines.—August 15.
- 15356 James William Butler, 24, Southampton Buildings, Chancery Lane, London.—Improvements in apparatus for extracting gold by means of mercury.—August 15.
- 15372 Alfred Buckingham Ibbotson, 45, Southampton Buildings, Chancery Lane, London.—Improvements in railway rails.—August 15.
- 15397 Charles Bowers, 37, Market Street, Droyliden.—An improvement in relation to twist drills for boring metals and other hard substances.—August 16.
- 15418 Stephen Ballard, 77, Colmore Row, Birmingham.—Improvements in keys and chairs for railways.—August 16.
- 15518 Carl Frederick Claus, jun., 1, Queen Victoria Street, London.—Improvements in the treatment of complex ores for the separation of gold, silver, and lead therefrom.—August 17.

SPECIFICATIONS PUBLISHED.

14155, Hood, extracting metals, 1894; 14185, Howard and Collier, blast furnaces, 1894; 14750, Richard, water tube boilers, 1894; 18908, Bull, cutting metal bars, 1894; 18,107, Nicholson, railway rail joint, 1894; 18398, Hosking, separating ores, &c., 1894; 7668, Hult, C. A. and O. W., steam engines, 1895; 11893, Golder, securing rails to sleepers, 1895.

The above specifications published may be had of Messrs. Rayner and Co., 37, Chancery Lane, London, at 10d. each, including postage.

JOINT-STOCK COMPANIES.**NEW REGISTRATIONS.**

THE following are among the joint-stock companies registered at Somerset House since our last notice:—

Henry F. Cockill and Sons (Limited).—Registered by Waterloo Chambers and Layton (Limited), Hurdin Lane, E.C., with a capital of £15,000 in £10 shares. Object: To acquire as a going concern the business of curriers and belting manufacturers, as hitherto carried on at Cleckheaton, Yorkshire, under the style of Henry F. Cockill and Sons; to enter into an agreement with the vendors; and to carry on and extend the said business in all its branches. The directors are H. Cockill and E. Cockill. Qualification, £2000; ordinary director's qualification, £100. Remuneration, £250 per annum each.

Thomas (Western Australia) Syndicate (Limited).—Registered by Batchelor and Cousins, 13, Walbrook, E.C., with a capital of £5000, in £50 shares. Object: To seek for and secure openings for the employment of capital in Western Australia or elsewhere. Registered without Articles of Association.

Mallina Proprietary (Limited).—Registered by Jordan and Sons, 123, Chancery Lane, W.C., with a capital of £150,000, in 5s. shares. Object: To adopt and carry into effect certain undetailed agreements for the acquisition, by purchase or otherwise, of certain mining claims, mines, mining, water and other rights, grants, leases, claims, concessions, options, metalliferous land, &c., in Western Australia or elsewhere; to develop and turn to account the same, and to carry on the business of a mining, milling, and smelting company in all its branches.

Alamo Syndicate (Limited).—Registered by P. H. Sykes, 44, Coleman Street, E.C., with a capital of £10,000, in £1 shares. Object: To prospect for, open, work, explore, develop, and generally turn to account, diamond, gold, silver, copper, coal, iron, and other mines. Most of the regulations of Table A apply.

Canadian Exploration Syndicate (Limited).—Registered by H. E. Herman, 21, Bartholomew Close, E.C., with a capital of £2000, in £50 shares. Object: To search for, prospect, and explore mines and lands in Canada, the United Kingdom, Africa, or elsewhere. Registered without Articles of Association. Registered office: Bartholomew Close, E.C.

Arrow Proprietary Gold Mines W.A. (Limited).—Registered by Travers, Smith, and Co., 4, Throgmorton Avenue, E.C., with a capital of £135,000, in £1 shares. Object: To adopt and carry into effect an agreement expressed to be made between G. P. Dolette of the first part and this company of the other part, to acquire certain mines, mining rights, grants, leases, claims, options, concessions, metalliferous land, &c., situated at Broad Arrow, in the colony of Western Australia; to develop and turn to account the same, and to carry on the business of a mining, milling, smelting, and metallurgical company in all or any of its branches.

French North Rand Estates Gold Mining Company (Limited).—Registered by E. J. Bellon, 7, King Street, Chancery Lane, E.C., with a capital of £10,000, in £1 shares. Object: To acquire any mines, lands, mining, water, and other rights, grants, leases, claims, concessions, options, &c., in South Africa or elsewhere; and to develop and turn to account the same in such manner as the company shall see fit; to employ and equip expeditions, explorers, experts, and other agents, and to carry on in all their respective branches the businesses of miners, millers, smelters, metallurgists, merchants, storekeepers, farmers, and graziers, stock raisers, &c.

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* We shall be obliged by being promptly placed in possession of particulars regarding contracts open for competition, and of the results of successful tenders. In the latter case contract prices should be given.

The date given is that by which tenders must be delivered, in nearly all cases further information can be obtained on application at the addresses given. In applying for such the name of "The Mining Journal" should be mentioned as the original source of the information, concerning which further particulars are required.

HOME CONTRACTS.

Pipes, September 2 (Christchurch, Hans).—For the supply and delivery of 3500 yards of 12 inch socket pipes at Christchurch and Bournemouth East Stations, for the West Hampshire Water Company. The specification and particulars can be seen at the office of Mr. R. St. George Moore, M.I.C.E., 17, Victoria Street, S.W., engineer to the company.

Railway Construction, September 2 (Buddleigh Salterton, Devon).—For the construction of a railway from the Sidmouth branch of London and South-Western Railway to Buddleigh Salterton, being a length of about 6 miles 44 chains, for the Buddleigh Salterton Railway Company. Plans and specifications may be seen, and forms of tender and bills of quantities obtained, at the office of Mr. William Clarke, engineer, 45, Parliament Street, Westminster.

Sinking Well, September 3 (St. Albans).—For sinking a well at Leverstock Green, for the St. Albans Rural District Council, according to specification to be seen at the office of Mr. Woodman, surveyor, St. Albans.

Coal, September 3 (Manchester).—For the supply of good burgy to all or any of the eight baths of the city, delivered at the baths, for 12 months commencing September 1, for the Baths and Wash-houses Committee.

Piping, September 4 (London, S.E.).—For the supply of 800 feet cast-iron piping, &c., for the Gordon Road Workhouse, Peckham, for the guardians of Camberwell. Forms of tender may be obtained upon application to Mr. Charles S. Stevens, clerk, Guardians' Office, 79, Peckham Road.

Rails, September 12 (London, E.C.).—For the supply and delivery of (1) steel rails, fishplates, fishbolts, nuts, and washers; (2) pressed steel sleepers and steel keys, for the Barnet Light Railway Company (Limited) in accordance with the specifications and drawings to be seen at the company's office.

Coal, September 13 (Rochester).—For the supply of steam coal for their Broad waterworks for 12 months ending September 23, 1896, for the Corporation of Rochester. Specification and form of tender can be obtained at the City surveyor's office, Guildhall, Rochester.

Railway Construction, September 24 (Manchester).—For the construction of a branch line to the Manchester Ship Canal, for the Lancashire and Yorkshire Railway Company. Plans may be seen, and quantities, with forms of tender, obtained on application at the Engineer's Office, Hunt's Bank, Manchester, on and after 28th inst.

Quay Wall, September 26 (Poole).—For the construction of a new quay wall, and dredging in connection therewith, for the Harbour Trustees. Copies of specification and bill of quantities may be obtained on application to the engineers, Messrs. Kinipple and Jaffrey, 3, Victoria Street, Westminster, where drawings of the works may be seen after 31st inst.

IRON AND STEEL INSTITUTE.

THE BIRMINGHAM MEETING.

THE business of the autumnal meeting of the Iron and Steel Institute was brought to a close on Thursday in last week at the Council House. The President (Sir David Dale) again presided, and there was a large attendance of members.

Nickel, Steel, and Its Advantages over Ordinary Steel.

Mr. H. A. WIGGIN read a paper on "Nickel Steel, and Its Advantages over Ordinary Steel." He acknowledged the great indebtedness they were under to Mr. James Riley, of Glasgow, for what he had done in nickel steel, remarking that Mr. Riley first brought the metal before the notice of the world. He (Mr. Wiggin) could not help thinking that Mr. Riley must share with many others deep regret that England at the present moment was the only first-class power which was not making use largely of that remarkable metal. The use of steel in place of wrought-iron for structural work, shipbuilding, rails, and other purposes, including armour and forgings for guns, met with great opposition; but it made its way surely if slowly, and now wrought-iron had become almost a thing of the past for structural and other purposes, as steel of less section and weight gave the same strength and stiffness with as great an elongation and safety. What they had to consider was whether the reasons which led to the use of steel could not now be advanced with the same force in favour of the use of a better material than ordinary steel. Nickel steel containing about 3½ per cent. of nickel was now being produced with the same elongation, a tensile strength fully 30 per cent. higher than ordinary steel and an elastic limit at least 75 per cent. higher. That material, although comparatively a new article of manufacture, possessed great uniformity, the nickel being uniformly distributed throughout the ingot, and not liable to segregation like other ingredients of the steel. For building and structural material the greater strength of nickel steel, and particularly its high elastic limit, made it far more advantageous than ordinary steel. The elastic limit of nickel steel was nearly double that of ordinary steel, while beyond that limit there was a considerable range to the ultimate strength with a large elongation. The use of nickel steel in beams, channels, bulb angles, &c., would no doubt lead to a change in the form of section similar to that which was made when steel superseded wrought iron. In the case of a steel frame of a large building or other structure, the weight of the frame itself was a considerable part of the load, and any saving in the weight was a great gain. New boilers for the United States cruiser *Chicago* were being made of nickel steel, which would give the necessary experience to determine what degree of advantage there might be in the use of the material for that purpose. Corrosion experiments had been made with specimens of nickel steel in competition with specimens of other kinds of steel, under conditions which should indicate its adaptability for use in boilers, and for the underwater hull plates of vessels. Those experiments, while on a small scale, and, consequently, not conclusive, seemed, however, to show that for those purposes nickel steel possessed a marked advantage in being less corrodible. That was also confirmed by the experience obtained from the use of nickel steel propellers. Mr. Wiggin gave the results of recent experiments, which showed the relative loss by corrosion of nickel and other steels under different circumstances, and said the high limits of nickel steel, together with its large elongation, and particularly its high elastic limit, indicated that the metal was well suited for gun-forgings, and it was being tried for that purpose with every prospect of success. Under the drop test nickel steel gave better results than ordinary steel. It was better able to stand a sudden strain than ordinary steel, and for that reason, together with its greater strength and stiffness, it was being extensively used for shafts, piston-rods, bearings, propellers, &c. In the case of a battle-ship, where the question of weight was of such vital importance, a hull of nickel steel of equal strength and stiffness to one of ordinary steel would mean a saving of weight of 500 or 600 tons at the lowest estimate, and that weight added to the armament, armour, or coal, or divided between them, would add a large percentage to the efficiency of the ship. Mr. Kjellberg, the managing director of the Bofors Steel and Ordnance Works, in Sweden, told him they had found from the trials made the fullest confirmation of the fact that a suitable addition of nickel to steel exercised a highly beneficial influence on the steel. It caused a very marked increase in the elastic limit and tensile strength, while at the same time the elongation was greatly increased. From the trials which had been made they had arrived at the conclusion that the beneficial influence of nickel on the properties of steel was far greater than one might be led to suppose from the results obtained in the testing machine as taken by themselves. In one of the trials they placed in one of their cast steel (nickel steel) gun tubes an ordinary cast-iron shell in such position that the centre of the shell was 300 millimetres (11·81 inches) from the muzzle of the tube. The shell was filled with compressed picric acid 170°. When exploded the shell burst into little bits, but the gun tube did not burst, and the only effect of the explosion was that the diameter of the tube was expanded by 1¼ millimetre (0·17 inch). Another similar shell, into which a similar quantity of picric acid had been poured, was placed in the same tube, and in exactly the same position as the previous one, and again exploded. The explosion had no effect whatever on the tube; it did not even increase the diameter further. For the purpose of an armour-plate trial, two nickel steel plates were cast, 2440 millimetres (88 inches) long, and 1830 millimetres (72 inches) wide, the one being 90 millimetres (3·54 inches), and the other 96 millimetres (3·78 inches) thick. Five shots were fired at each from a 12 centimetre (4·72 inch) rapid-firing gun, the projectiles being of Bofors steel, and weighing 21 kilogrammes (46 lbs.). The charge of powder was 3·37 kilogrammes (7·3 lbs.), and the velocity of the projectile at a distance of 46 metres (150 feet) was between 361·8 and 364·4 metres (1190 and 1200 feet). Each of the steel projectiles rebounded intact without having penetrated the plate farther than to the cylindrical parts of the shells, and upon examination of the plates small cracks were with some difficulty found to have resulted from shots. Nos. 2, 3, 4, and 5 on the 90 millimetre plate, but none could be found on the 96 millimetre plate. Seven more shots were afterwards fired with similar projectiles, but it was not until the 11th shot that the plate broke. The 12th shot was fired with a charge of 4·10 kilogrammes (9 lbs.) of powder, the projectile having a velocity of 413 metres (1350 feet), and then the 90 millimetre plate was at last penetrated. It was worthy of note that according to Krupp's formula, a projectile such as that—that was to say, weighing 21 kilogrammes, and having a velocity of 413 metres—ought to penetrate a wrought-iron plate of 150 millimetres (5·9 inches) in thickness; and it followed, therefore, that the 90 millimetre nickel-steel plate was 54 per cent. stronger than a wrought-iron plate of 90 millimetres. A large experience in making steel for war materials satisfied Mr. Kjellberg that he never could have attained the results he had done without the assistance of nickel. In general the percentage of nickel did not affect the welding power at all. The steel must be treated like any other steel, using more care with the higher carbons.

In conclusion, Mr. Wiggin referred to the cost of nickel steel, which he said could now be furnished at the price of ordinary steel a few years ago; and as ordinary steel had been greatly reduced in price in the last 10 years by improvement in the manufacture, so he believed the increased demand for nickel steel would cause a similar reduction in price as soon as the manufacture of it became sufficiently extended and improved. In this age of progress and development, no material could long remain exclusively or even principally used. When a better was known it would be employed, and he claimed that in nickel steel they had a better material than the ordinary steel of today. (Applause.)

Mr. JAMES RILEY was pleased that Mr. Wiggin's paper was a corroboration of almost every point he made in the paper which he read before the Institute in 1889. They were two points, however, in which they disagreed—namely, on the matter of welding and the extent of the non-corrodibility of the metal. Mr. Wiggin's experiments were not quite corroborative of his own as to the extent of non-corrodibility. They agreed that the nickel steel was less subject to corrosion than ordinary steel, and that it was an admirable quality of steel; but his tests did not prove that to exist to the extent Mr. Wiggin showed. They were altogether in disagreement as far as the welding properties were concerned. He had not found that nickel steel welded readily—in fact, his impression was that the presence of nickel was detrimental to that quality. With regard to the use of the metal, perhaps more had been done with it than had been apparent. He did not think they might reasonably expect that nickel steel would be used, at all events, for a considerable time to come in constructing the hulls of ordinary vessels, but in the construction of vessels of a special type for war, or vessels like the *Lucania* and *Campania*, where money was not a great object, but safety was everything, then he thought it was probable nickel steel would be used. He was astonished that boilers were not more largely made of nickel steel in this century. When the *Lucania* and *Campania* were being constructed, he pointed out that if the boilers were made of nickel steel there might be a saving of some hundreds of tons in each vessel, or a still higher pressure might be used and greater economy might be obtained in working the engine. He was glad to know that attention had been turned in that direction, and that several vessels had been built in which the steel, the material used in the construction of the hull, had fulfilled all the tests referred to by Mr. Wiggin.

Mr. BEARDMORE thought that in nickel steel they had a most valuable metal which very few people seemed to have studied. If marine engineers realised the very superior metal they had in nickel steel they would consider in what way they could use it. For the last two years he had been making nickel steel in considerable quantities, and he had found the metal in every way to be most reliable and uniform. The results which he had obtained in the testing-house had been very satisfactory, and he was at the present time engaged in preparing a series of tests from plates from 1 inch to 1½ inch in thickness with the view of placing the results before Messrs. Lloyd and the Board of Trade, in order that they might consider the desirability of adopting the material for boiler-plates. The nickel steel he had been making was entirely for armour-plate work, and he did not know that it had been used for anything else in this country.

Mr. HEAD said that recently he was taken through the Homestead Works of Mr. Andrew Carnegie, where he saw the manufacture of armour-plates of 25 tons weight. The nickel alloy used had 3½ per cent. of nickel. The cost of the alloy, he was told, was not more than £7 per ton, and, therefore, it did not seem to be an extravagant cost when they remembered that the work was being done in America.

Mr. WINDSOR RICHARDS said that at the works of the Bethlehem Company, the great rivals of Mr. Carnegie in the manufacture of large armour-plate forgings, nickel steel was largely used. He was shown a 100 ton ingot, which was being forged under a 10,000 ton press. Whilst watching the forging he observed a very thick scale on the ingot, and that scale kept rising continually. When ordinary steel was being forged the scale was got rid of, but in nickel it clung tenaciously to the metal, and made a very rough surface. It was probably owing to that that there had not been that extension of the use of steel plates in shipbuilding that Mr. Riley had anticipated. He mentioned that very troublesome disadvantage so that Mr. Riley and others who had used nickel steel in plates might, perhaps, be able to account for its not making the progress expected.

Mr. THOMPSON (New York) said there was no doubt the American Government had taken more interest in the use of nickel steel than any other of the great Governments of the world, and in so doing had encouraged the steelmakers to use it not only for Governmental but for private purposes. In the United States nickel was being used for armour-plates, for the barrels of small arms, for large guns, for wire for torpedo-netting, and it was also being used in the construction of vessels. The Steel Board of the Navy Department had recommended that the entire hulls of the new battleships now in course of construction should be made of nickel steel. Nickel steel was also being largely used in Russia, France, and Germany, and it seemed almost as if England knew how to produce good things, but was not quite ready to put them into practical use. (Applause.)

Mr. MILTON, as a representative of Lloyd's, denied that the use of steel in place of wrought iron met with long-continued opposition, as suggested by Mr. Wiggin. The great use of steel in shipbuilding in this country and the world was to some extent due to the encouragement given by Lloyd's Register to its use—hear, hear—and if nickel steel had all the qualities it was said to possess, Lloyd's Register would be very pleased to consider the points, and if they were satisfied with them would welcome the material. (Hear, hear.)

Mr. SNELOS was quite prepared to believe that nickel steel would not corrode as fast as other steel. He thought the corrosion of an alloy depended almost entirely on the metals which entered into the composition of that alloy.

Sir HENRY WIGGIN said the interest he felt in the question was rather of a patriotic character. If nickel had so largely increased the strength of iron he should like to know why it had not been adopted by the English Government in the building of ironclads. England possessed great scientific knowledge, and was one of the first metallurgical countries in the world, and, seeing that other countries, America, France, Germany, and Russia, were using the alloy very extensively, it seemed strange that England had not adopted the use of a metal which appeared to be so very valuable in consequence of its great resisting power. He did not know whether any Government official was present and would give them some explanation.

Mr. WINDSOR RICHARDS, in reply to Sir HENRY WIGGIN, said that Sir William White went carefully into the matter before he decided on the merits of the two kinds of steel, and they might rely upon it that he adopted the one he considered best in the interests of the country.

Mr. F. W. PAUL challenged the statement that nickel was better than ordinary steel up to ½ inch. Ordinary steel, he contended, would give as good results as nickel steel.

Mr. THOMAS TURNER said that no reference had been made to the physical properties of nickel steel in regard to expansion and contraction. He had seen it stated that nickel steel contracted very much under the influence of cold, and the state-

ment had been made that if a warship constructed entirely of nickel steel was sent into the cold regions, the steel would so contract that the fabric of the vessel would suffer seriously. If that were correct it would have a considerable effect on the adoption of nickel steel, and if it were incorrect it should be contradicted.

Mr. MILTON, in answer to the last speaker, said that so long as the steel contracted uniformly it did not matter. Ordinary steel boilers when in use were sometimes a quarter of an inch longer than when they were cold, but that gave rise to no difficulty so long as due provision was made for the expansion of the steam pipes as well. The whole question was one of uniformity of expansion and contraction.

Mr. P. F. NURSEY and Sir JOHN ALLEYNE also took part in the discussion, which was closed by the President thanking Mr. Wiggin for his paper, and saying that that gentleman would reserve any comments he might have to make on the discussion for the columns of the Journal.

Small Cast-Steel Ingots.

Major SMITH-CASSON read a paper on "Small Cast-steel Ingots." He said the importance of obtaining small steel ingots chiefly concerned the Midlands more than, perhaps, any other district in Great Britain. The old mills could not possibly compete in manufacturing large sizes with the splendid appliances of the modern steelworks. Only in small sections was there any chance of doing business successfully; and, indeed, the home demand was principally for sheets, strip, and small sections. At present such mills were dependent upon the large steelworks for their supplies of blooms and billets, only to be had at reasonable prices when the steelworks were short of orders for rails, plates, and finished bars. At other times, however, they were difficult to obtain unless very high prices were paid. Again, such steel rolled in large mills from huge ingots had so much work put upon it that it was found to be very hard to roll down in the small mills. It brought a considerable extra strain upon the machinery, involving extra firing, wear, and tear. However good the quality, steel would not stand the fire like iron; in fact, when welded it would break at the weld with a crystalline fracture, whereas iron of good quality would show as good a fibre at the weld as anywhere else. It was no doubt mainly for that reason that steel had not been so successful for chains and other purposes where fibre at the weld was a *sine qua non*. In his efforts to introduce steel he had often met with that objection. It was, therefore, of the first importance to the manufacturers of small sizes, and especially to the proprietors with mills slightly under-engineed, to have a material that they could roll down easily, whilst giving their customers the quality needed, and be quite independent of the large steelworks for their supplies of material. Those results could be got with small ingots. It might be argued that unless they had previously rolled down the ingots into blooms and billets, sufficient work had not been put upon the steel; but that argument applied with equal force to large sections, which were invariably rolled direct from the ingot. On reflection, it would be seen that there was infinitely more work upon (say) a 3 inch ingot rolled into ½ inch square, than a 15 inch ingot into 5 inch square. The former was reduced in the rolling down to 1·36th of original size and the latter 1·9th. Another argument that might be advanced against the small ingot was the question of cost. It might be urged that the labour in casting was greater than with a large ingot, and consequently swamped the saving effected in dispensing with the rolling down into blooms and billets from large ingots. He admitted that the cost would be more, but from information he possessed, 1s. per ton or so would cover it, whilst the enormous first outlay of cogging and billeting mills was avoided. The Belgians and Germans were alive to the importance of the matter, and were rolling extensively from small ingots. That might to some extent explain the severe competition from those quarters. The writer then explained how the small ingots might be cast; and, in conclusion, said the samples which he had brought for the inspection of the members showed that for all practical purposes to which soft steel was applied the steel was as good as it could possibly be rolled from small cast ingots.

Mr. WINDSOR RICHARDS said that Major Smith-Casson had approached a very difficult subject, and one engineers had been considering for many years. There were objections to the small ingots, because they were not found to be so advantageous as the others. However, if the writer of the paper had overcome the obstacles, he would have rendered a very great service.

Messrs. G. J. Snelus, T. Walker, H. Webb, J. Kerr, and T. Turner also took part in a very technical discussion.

Tests of Cast-Iron.

The last two papers on the agenda were taken as read, and there was no discussion upon them. The first was by Mr. W. J. Keep (Detroit) on "Cooling Curves and Tests of Cast-Iron;" and the second was by Mr. T. D. West (Pennsylvania), also on "Tests of Cast-Iron." Mr. Keep's paper was illustrated by diagrams, and the writer dealt exhaustively with the subject, explaining the practical results of the experiments he had made. Mr. West described the result of his study of the cause of the erratic results observed in testing the physical properties of cast-iron, with the object of overcoming them as far as possible.

Votes of Thanks.

The President proposed:—"That the best thanks of the Iron and Steel Institute be and are hereby tendered to the worshipful the Mayor of Birmingham (Alderman Fallows, J.P.) for his kindness in granting the use of the Council House of this city for the purposes of this meeting and for his kind reception of the members of the Institute. That the best thanks of the members are hereby given to the Chairman (Sir Benjamin Hingley, Bart.), to the hon. treasurer (Mr. Arthur Keen, J.P.), to the hon. secretary (Mr. Leigh H. Elkington), and to the members of the Local Reception Committee for the great cordiality of the welcome extended to them, and for the arrangements ably planned and successfully carried out for the convenience, instruction, and pleasure of the members during the present meeting. That the best thanks of the members are also hereby given to the London and North-Western Railway Company, to the Great Western Railway Company, and to the Midland Railway Company for providing free special trains to Wolverhampton, Kenilworth, Warwick, Stratford-on-Avon, and Worcester; to the authorities of Mason College for their valuable co-operation; to the proprietors and managers of the various works and industries of the district for their great courtesy in receiving the members, and for the permission given to inspect their establishments; and to the committees of the Birmingham Exchange and to the clubs of the city for privilege accorded to the members of the Institute." He said the visit to Birmingham would long be remembered, not only as a successful one as regarded the papers read and discussed, but for the great assistance, liberality, and judgment exercised by the Local Committee throughout.

Mr. LUNGBERG (Sweden) seconded the resolution, and on behalf of the foreign members expressed appreciation of the excellent arrangements that were made by the local committee for their entertainment and instruction.

The resolution having been carried by acclamation, other votes of thanks were accorded, and the proceedings terminated.

After luncheon several excursion parties were formed to visit the neighbouring places of interest.

CINNABAR IN TEXAS.*

By WILLIAM P. BLAKE, Mill Rock, New Haven, Conn.

THE literature of the occurrence of quicksilver ore in the United States does not contain, so far as the writer is aware, any mention of the locality herein described.

In the preliminary report upon the resources of the Trans-Pecos region of Texas, Von Streerwitz gives a long list of minerals observed as occurring there, but cinnabar is not mentioned. In the second report upon the same region mention is made of the reported existence of cinnabarite in one of the mountain ranges north of the Sierra Carrizo and the Bofecillos, but the author adds:—"In spite of my careful examination of the float, I have not yet found any traces of this metal (quicksilver) up to the present time." Professor Dumble, also, in his general report, says of mercury, "that, like tin, this metal has been reported from several localities, but up to the present we have not succeeded in verifying any of the reports or of finding any traces of it."

The later reports of the Texas survey contain no further reference to this subject, nor any occurrence in Texas noted by Becker in his exhaustive monograph upon the quicksilver deposits of the United States.

Early in the year 1894, Mr. George W. Manless, of Jimenez, Mexico, agent at that point of the Rio Grande Smelting Works, having learned that some Mexicans had obtained very rich cinnabar in the mountains of Texas, a few miles north of the Rio Grande, undertook, together with Mr. Charles Allen, of Socorro, N.M., an exploration of the region, with the result of finding the cinnabar deposits and locating them for development. My attention was directed to them through Mr. James P. Chase, of Socorro, with whom I visited the locality in the month of August last. About the same time a notice of the discovery was printed in Los Angeles, Cal., and it was also mentioned in one or more of the papers in El Paso, and later in the *Manufacturers' Record*, published in Baltimore.

The locality is in the southern portion of the part of Texas, within the Big Bend of the Rio Grande river, about 80 or 90 miles south of Alpine station, and 90 or 100 from Marfa station on the Southern Pacific Railway. It is 50 or 60 miles from Presidio del Norte, and about 10 or 12 miles from the Rio Grande. These distances, it will be noted, are approximately stated, as there has not been any survey of the region. The longitude is about 27° W. and lat. 29-30° N. The cinnabar is best reached from Marfa by team through an open country, with a gradual descent from the Marfa tableland to the Rio Grande valley, following first the valley of the Alamitos, and then over a low divide to the Tres Lenguas, which is followed southwards, generally between the flat-topped hills of the mesas on each side, until nearing the Rio Grande, where the road winds among higher and more rugged hills. The last six miles of the route is impassable for wagons, and the cinnabar camp is reached by a pack-trail which turns westwards from the wagon road, and leads across a country much broken and intersected by dry "washes" or creek beds.

The hills are low, but are much broken by escarpments of nearly horizontal strata of Cretaceous limestone. The elevation of the camp is shown by the aneroid barometer to be 3250 feet above tide. The valley of the Rio Grande, marked by its fringing groves of cottonwood-trees, is in full view for several miles. The mountains across the border in Mexico are also clearly seen, as well as the high range on the south-east known as Los Chisos, culminating in Emory's Peak, and the peculiarly-shaped peaks known as the "Mules' Ears"—all noted landmarks. Major Emory, describing this region in a few words, says:—

"The Rio Bravo, accommodating itself to the geological formation of the country, makes between the 100th and 104th meridian of longitude, two great bends nearly symmetrical, one to the south and the other to the north. The area included in the southern bend is one vast Cretaceous bed, upheaved by igneous protrusions, sometimes forming ranges of mountains, as the Limpia range, and at others isolated peaks, like Gomez Peak and San Jacinto."

From Marfa to the Tres Lenguas the direction is nearly south-east, following a widely eroded valley in tablelands, which are generally capped with a hard layer of basaltic lava, seen to the best advantage at the Alamitos rancho and in the Church Mountains, near Collinson's rancho. An isolated conical mountain, rising from the broadly eroded country to the eastward of the Church Mountains, has a flat top, and is evidently a remnant of the former mesa, left standing as a monument, as if to show what an enormous amount of material has been swept away to the Gulf by erosion and degradation. The edges of the horizontal beds can be seen from a distance, and the mountain, known as San Diego Peak, doubtless affords a very complete and interesting section of the entire series of beds from the lava-cap to the lower strata of the Cretaceous.

The beds of which this peak and the mesas along the Alamitos and the upper branches of the Tres Lenguas are chiefly formed are remarkable for their whiteness and homogeneity, and appear to consist chiefly of an indurated volcanic mud. It is an amorphous mass, in which there is a large amount of clay and silica; but it is without well-defined structure of stratification. It is remarkable for the general absence of oxide of iron. It is fusible and would appear to be a mass resulting from the breaking-up of feldspathic rocks. The thickness is probably not less than 500 feet, and it extends over a wide area, east and west, as far as the edges of the high mesas can be seen. The general uniformity of composition of this deposit is broken towards the top of the mesas by a bed of conglomerate and breccia, 10 feet or more in thickness, made up chiefly of red and brown porphyritic rocks. The masses being, in part, well-rounded, show the action of currents of considerable force and extent. This stratum contrasts strongly with the white sediments above and below, and makes a dark-coloured belt or band through the hills, visible for miles on either side.

Of the geological age of this series of beds under the lava, it is impossible from the limited observations and the entire absence of fossils to write positively; but it is my opinion that the Pliocene and Miocene Tertiary are represented, and that these volcanic deposits should be correlated in time with those of the upper Gila, of Central Arizona, and those of the gold region of the Sierra Nevada in California.

In descending the valley of the Tres Lenguas there is a marked transition from the volcanic beds to those of unquestionable Cretaceous age. At first thick masses of finely-bedded blue and yellow shales are encountered, and in the broad flat surfaces countless casts of *Inoceramus* reveal their proper horizon. The strata, at first lying apparently horizontal, are found to be cleft in various directions by faulting-planes, with large blocks partly upturned and evidences of extreme lateral pressure, by which the shales along the faults are buckled upwards and crushed.

The shales are succeeded by limestones, massive, light-

coloured, nodular, and rugose in structure, and filled with large specimens of *Erygyra* and other characteristic Cretaceous fossils.

As the cinnabar locality is approached, the Cretaceous strata are much more broken and uplifted in monoclines dipping west. Older and crystalline rocks appear, and there are intrusive dykes. Compact blue limestones are found, with an abundance of *Gryphaea* and some ammonites. There is a large development of a yellowish-brown limestone, largely made up of foraminifera *Nodosaria texana* (Conrad), marking a well-known geological horizon in Eastern Texas. According to Professor Dumble, of the Texas Survey, its position is the upper portion of the Arietina clays, though in the trans-Pecos region it seems to occur near the base of the Washita division. This is the nearest well-defined fossil horizon I have found contiguous to the cinnabar deposits with the exception of a fossil *Pecten* in one of the cinnabar openings.

The cinnabar occurs both in massive limestone and in a siliceous shale and a white earthy clay-like rock, and in part in a true breccia of grayish-white siliceous shale, dense and compact, imbedded and cemented in a red and chocolate-coloured ferruginous mass, also dense and hard. The white blocks, or included fragments of the shale, exhibit a concentric arrangement of colouring by oxide of iron disposed in bands and thin sheets, deposited in the substance of the shale by the absorption of ferruginous solutions, penetrating from without inwards along the surface of the fragments. These deposited coatings or layers conform in general to the exterior forms of the masses, and succeed each other like the concentric layers seen in agates and chalcedony. The coloured depositions may also be seen surrounding tube-like or thread-like channels, which have permitted the inflow of solutions bearing not only iron salts, but also those of quicksilver, and leaving behind, in the substance of the rock, layers of iron oxide and of cinnabar concentrically disposed.

While the genesis of the cinnabar is here shown to be essentially like that of the iron oxide, it is smaller in quantity, and is so far separated from the ferruginous bands as to show a great difference in the conditions of deposition. The cinnabar is more generally crystalline than amorphous; it is not found in such continuous coatings or layers in the white shale as the iron oxide, but is in distinctly separate grains and small but brilliant rhomboidal crystals, having the brilliant red colour characteristic of vermillion. There are also considerable masses of snow-white argillaceous rock, seemingly the result of alteration of shale by infiltration, in which cinnabar is found in minute crystalline grains spread in bunches here and there through the mass, and often not observable until the mass is rubbed or bruised with a pick or hammer, when the red colour or vermillion appears. In such masses there is apparently a complete absence of ferruginous matter. The soft, white, chalk-like masses of rock do not appear to be so favourable to the crystallisation of the cinnabar as the more dense and siliceous portions of rock, resembling chert or flint, where the cinnabar is in distinctly-formed crystals sprinkled through the rock, much like the occurrence of cinnabar in the siliceous gangue of the deposits of Buckeye rancho, California.

In addition to these disseminated crystalline granules in the brecciated shale and in the more massive white rock, there are amorphous bunches of cinnabar found in the shales and in the limestones and the breccia. This cinnabar is not, however, in hard masses like those of the New Almaden Mine in California, nor is it in veinlets, as there found, traversing the rocks; but it is soft and friable, and has a light vermillion colour. Calcite is associated with it, but, so far as observed, no petroleum or bituminous exudations. Some of the larger masses of cinnabar bunches, weighing 2 or 3 lbs. of nearly pure mineral, were taken out of an open-cut, where the shale appears to be the parent rock; but I noted also some small bunches of the cinnabar in the compact blue limestone.

There are several points on the line of about 1000 feet in length, along a shallow ravine, where open-cuts have been made to a depth of a foot or two, revealing the presence of cinnabar in each, and in the soil mixed with the croppings. This linear distribution of the cinnabar is indicative of a vein-like occurrence, or it may be the result of a cropping of a certain bed or stratum. The openings which had been made were not deep enough to show conclusively the real conditions of occurrence. In some places the appearances favoured the conclusion that the ore is interstratified or bedded; in others it seems to occur along a fissure or fault plane, and it is most probable that both of these forms of occurrence will be found to exist.

There is a second line of cropping of cinnabar a few rods north of the first and higher up the hill, and in the midst of the hard limestone. This is in the midst of a well-defined breccia of iron oxide, and the masses of cinnabar are closely associated with it. Masses of iron oxide rock and cinnabar weighing 1 cwt. or more can be broken out from croppings here; but no work has been done to develop this ground in depth. The cinnabar croppings may be traced for a few feet each way, and the breadth does not exceed 18 inches or 2 feet. This occurrence does not appear to be connected with the series of croppings before described, and it has a more decided resemblance to a fissure deposit or impregnation.

The existence of several outcrops of a ferruginous breccia, with and without cinnabar, is indicative of breaks in the beds in the nature of fissures (fault planes, probably), accompanied by rupturing and crushing of the rocks by violent movements under pressure. Other evidences of fissuring and of metaliferous impregnation through the fissures are visible in the neighbourhood in the many vertical cracks in the limestone strata, marked by the lateral deposition of oxide of iron on both sides. Such deposits are extensive and show that there has been an abundant supply of iron-bearing solutions. Whether these solutions flowed from below upwards or from above downwards it is not essential to determine; but the source of such solutions is indicated in one place, not far distant, by very considerable deposits of iron pyrites in a blue clay or bluish-green shale cropping out a short distance south of the cinnabar deposits. This pyrite is compact, granular, non-crystalline, and bronze-like, and is apparently in nodular masses in the shale. The relations of these deposits of pyrite to the cinnabar were not further ascertained, and can only be theoretically assumed. We may in this way suppose that the cinnabar is present in the pyrites, and that it is carried in solution and deposited, together with the iron oxide, in the rocks, where the conditions are most favourable. Careful chemical investigations can alone determine whether the pyrite contains quicksilver, and the nature of the chemical changes of decomposition and recombination resulting in the formation of the cinnabar.

The phenomena all point to a formation from aqueous solution rather than to a deposition from vapour.

Leaving theories of origin aside, the practical question to the miner and metallurgist is as to the best place in which to sink for the better development of the ore in quantity. This place would appear to be at the brecciated cropping on the hill in the limestone. Whatever the origin of the ore may be, this place seems the most promising; as limestone, being the more soluble rock, may contain large bunches below, where the ore has been accumulated by replacement. On the other hand, we have seen that the insoluble porous shale rock offered favourable

conditions for the deposition of the cinnabar without the exhibition of the phenomena of replacement, the conditions here favouring the gradual concentration of mercuric solutions by evaporation from the pores of an insoluble containing rock.

In considering the source and origin of the cinnabar we should not lose sight of the fact that there is an intrusion of doleritic rock near by, and that this probably has direct and close connection, not only with the disturbance of the strata, but also with the source of the metaliferous impregnations.

The conditions for working these deposits of cinnabar are not as favourable as could be wished. The brilliant colour of the ore would permit of its being utilised as vermillion, but there is no water near the place for concentrating it. Considerable ore could be taken out of the loose earth along the main croppings if water could be had to wash with. A supply of wood for fuel can be had along the Rio Grande, and could be delivered at the mines for probably \$5 or \$6 per cord. Although a considerable quantity of high-grade ore which would bear transportation could be selected by culling, there would remain a larger quantity of low-grade which would be practically useless. There has not yet been sufficient work done on the croppings to show satisfactorily what quantity of ore of a desirable average percentage can be expected.

MINING IN CORNWALL AND DEVON:

NOTES ON MINING IN THE WEST.

(FROM OUR SPECIAL CORRESPONDENT.)

BY far the most interesting and important feature of the week has been the meeting of East Pool adventurers on Monday, and the lengthy discussion which took place on the vexed question of the pumping arrangements with the neighbouring mine of Wheal Agar. Interest was added to the discussion by the presence of Mr. Cornelius Bawden, and Captain Hambly, the manager, of the last-named mine, and for some time a battle royal was waged between Mr. Bawden and some of the shareholders in East Pool. Mr. Bawden at one time endeavoured to go into matters which had occurred four or five years ago, but fortunately the assembled adventurers were spared the infliction of listening to a recital of ancient history which could not have contributed in any way to the bringing about of a settlement. Some fault undoubtedly lies at the door of each of the executives, and while they are in their present mood it is useless to expect them to come to terms. Arbitration is the only method which they can adopt, and if, instead of disputing as to who made the first offer of arbitration, the two companies would select their men and let them get to work, some headway may be made. Wheal Agar has certainly gained its point by forcing East Pool into an agreement to work Wheal Agar engine for a month at their own expense, but having done this, the responsibility will rest upon Wheal Agar for seeing that every attempt is made to ensure the engine being kept constantly at work. It is to be hoped we have now seen the last of this petty strife, and that before long the shareholders may have some fair and equitable scheme of amalgamation presented to them.

THE accounts for the first time for many years showed a loss of over £400, the result of the lowering of the average produce of the mine and of the loss of four days' holidays. The committee did not recommend a call, although their first intention was to do so, and the £400 loss comes out of the reserve fund which has been built up. East Pool seems to be getting poorer every quarter, and wants an improvement badly. The arsenic sales were again an important item, realising over £1200.

THE improvement in Vottle shaft at Wheal Kitty is maintained, and is regarded by those who know the St. Agnes district well as a very important discovery for the future of the mine. The lode is presumed to be the West Kitty lode, though the heaves in that district are so peculiar and frequent that it is difficult to speak accurately. The tin there is also very "bunchy," and shareholders will want to see it developed a little before they are satisfied as to its permanence. We understand that Wheal Friendly executive are contemplating a large expenditure on machinery with a view to vigorous development. Certainly their action in this direction cannot be regarded as premature or hasty.

A POINT of great interest to the tin streamers of the county was decided by the Vice-Warden at Truro, on Thursday. It has been a moot point for a long time as to whether they are liable to pay the assessments, and on Thursday Mr. C. V. Thomas, of Camborne, appeared before Mr. Fisher to argue the matter on behalf of a number of leading streamers. His contention was that "streaming," as at present carried on, was quite unknown at the time of the passing of the Acts under which the Stannary dues are paid by miners. "Stream-works" of the kind indicated by the term as then used, and thus the Vice-Warden confronted Mr. Thomas with the word "tinnery," mentioned in one of the statutes, but he argued that by "tinnery" were meant men who were either working alluvial deposits or underground in mines, and repudiated the wider interpretation of "all who work for tin," which the Vice-Warden suggested. The argument was ingenious rather than plausible, and Mr. Thomas himself can hardly have been surprised when the Vice-Warden intimated that in his judgment the streamers were liable.

Among the ventures in Cornish mining which are now appearing under the new form of Limited Liability, we are glad to see this company, which has been formed under the able direction of Messrs. J. H. Collins and Sons, to take over the lease, plant, machinery, and other property hitherto belonging to the Wheal Metal and Flow (Cost Book) Company. The purchase consideration was £4500, which has been taken altogether in shares, and the capital of the company is £15,000, in 60,000 shares of 5s. each. As the mine is a going concern, and the machinery is in good working order, this capital is expected to afford ample means for exploring the western part of the famous Metal lode, which is the especial object for which the company has been formed. Hitherto the western workings have been extremely limited, but it is now intended to open out this portion of the lode in depth. The encouragement to do this lies in the fact that between 1855 and 1877 the eastern portion of the same lode was worked to a depth of over 200 fathoms, and yielded more than 9000 tons of black tin, which sold for £400,000, of which amount £90,000 was declared in dividends. The price of tin is low at present, though many people look for a considerable advance before long. But the Metal lode is said to be one of more than average richness, and should the part now to be worked prove to be as rich as the eastern part was a quarter of a century ago, the undertaking would be profitable at the lowest prices realised during the present century.

* A paper contributed to the American Institute of Mining Engineers. The *Engineer* August 14, 1894, vol. xli., No. 16, p. 3.

THE PRESENT LIMITATIONS OF THE CYANIDE PROCESS.*

By C. W. MERRILL, B.S., San Francisco, Cal.

THE cyanide process in the United States, notwithstanding numerous failures made under the direction of the owners of the patent rights, and others, has now passed its experimental stage, and can, undoubtedly, be made successful when intelligently applied to suitable material.

Much, however, remains to be known as to the exact conditions under which this process is applicable to the treatment of gold-bearing ores. If the owners of the patent rights in this country have ever scientifically investigated the matter, they have never published any valuable information on the subject. Other parties who are now using the process (often independently of the patentees), have nothing to gain by publishing their experience; and, moreover, many of the chemical reactions described in the text-books refer to the use of solutions of potassium cyanide many times stronger than are used in the metallurgical process.

I have, therefore, ventured to outline in the following paper some conclusions from laboratory and field investigations, hoping thereby to induce others to communicate their knowledge, and thus to give new light upon certain points which are as yet unsettled; also to call attention to matters which should be kept in view in considering the treatment of ores by this method; and, finally, to add what little I can to the knowledge now extant upon the subject.

Unless otherwise specified, the term ore, as used in this paper, will signify either ore or tailings.

The consideration of ores of which the silver forms an important factor of their value, will be omitted, although there are good reasons for believing that, with some modifications, certain silver and silver-gold ores can be successfully treated.

Ores containing coarse gold, which is not easily soluble in potassium cyanide, should always have that portion of the gold extracted by concentration or amalgamation before leaching. This precaution being observed, out of some 15 gold ores on which I have experimented, not one has been found in which more than 25 per cent. of the original value was left in the tailings after leaching with a solution of potassium cyanide.

In some cases less than 5 per cent. so remained, the average being about 15 per cent. But often the decomposition of cyanide of potassium was so great as to prohibit the application of the process. The assertion of the patentees, which forms the basis of their original United States patent, to the effect that solutions containing cyanogen in a proportion not exceeding 8 parts of cyanogen to 1000 parts of water (which is equivalent to a 2 per cent. solution of potassium cyanide) will dissolve gold and silver in the ore, while leaving the base metals practically intact, is contrary to the fact, as a solution containing as little as $\frac{1}{2}$ of 1 per cent. or less of potassium cyanide, will dissolve compounds of some of the base metals, and especially of copper, zinc, and manganese, with the greatest facility.

Of the ores unsuited to this process, some are so for chemical reasons. Of these, cupriferous ores are specially to be mentioned. The great affinity of all copper minerals (save, possibly, the silicate, the phosphate, and native copper), for cyanogen, is the cause of a large consumption of cyanide of potassium, which is an expensive reagent. A means of recovering the cyanogen thus rendered useless has not as yet been devised. A few figures will illustrate this large consumption. One pound of copper will combine with a little more than 2 lbs. of potassium cyanide to form the double cyanide of copper and potassium; therefore, if an ore contain as little as one-half of 1 per cent., or 10 lbs. per ton of copper, in a mineral form which is soluble in the solution used, the amount of cyanide of potassium rendered useless will be more than 20 lbs., costing, at 50c. per lb., more than \$10.

The same line of reasoning applies to oxidized zinc-bearing ores, but the affinity for cyanogen does not seem to be as great in zinc minerals as in those of copper.

The consumption of potassium cyanide occasioned by the presence of certain compounds of iron and manganese can sometimes be obviated, to a great extent, by mixing lime with the ore; but at other times there is, in leaching partially oxidized pyritic ore, a consumption of potassium cyanide which the use of lime will not overcome. There is no precise information available as to the mineralogical or chemical conditions under which these differences occur.

Other ores offer difficulties because of their physical nature. This is the case with ores naturally soft or limy, and yet not porous enough to give a good extraction when crushed coarse. By fine crushing these are rendered so impermeable to the solution that successful leaching is impossible.

Similarly, the treatment of slimes which have become segregated from the sandy constituents of the ore has not, as yet, been solved in a practical manner.

Furthermore, there is a class of roasted material, in the roasting of which the temperature was so high as to fuse the minerals in which the gold occurs, thus so imprisoning the gold as to render it incapable of being dissolved by the cyanide solution.

Coming now to the, as yet, undetermined class of ores, trustworthy information from continuous working of large quantities is still lacking in regard to the behaviour toward cyanide solutions of ores containing galena, zinc-blende, or oxidized lead compounds, also of telluride ores and unoxidized pyritic ores. Their adaptability to the treatment will depend, in the first place, upon the condition in which the gold is present (whether distinct from the base metals or chemically or intimately combined with the latter), and, in the second place, upon the solubility of the base metals in a solution of potassium cyanide of a strength sufficient to extract the gold. Where this solubility exists to any great extent the consumption of potassium cyanide will render the process unavailable. Moreover, the solubility of the base metals entails other evil effects besides the chemical loss of potassium cyanide. As the solution becomes fouled by their presence, its extractive power becomes weakened, even though the normal percentage of active cyanogen be maintained by the addition of fresh quantities of potassium cyanide. Again, the gold and silver contained in solutions of this kind are imperfectly precipitated in contact with metallic zinc. The zinc filaments used in practice for precipitating the precious metals become incrustated with a deposit which prevents their further action to such an extent that, as has happened in a large plant erected for the cyanide process, the solution, after it has been used on the ore a few times, will flow out of the zinc boxes almost as rich as it went in, causing, with other difficulties in the treatment, the failure of the process.

The class of ores suitable for this process comprises all oxidized ores which are not included in the above classes; also, roasted tailings from which the coarse gold has been removed, and which do not contain such compounds of the base metals as

will consume too large a quantity of potassium cyanide; and, finally, strictly quartzose or siliceous ores in which a considerable quantity of fine gold remains after amalgamation. A small percentage of pyrites in such cases will not prove an insurmountable objection.

In conclusion, it may be said that, as far as known at present, only those ores can be economically treated which will readily yield a fair percentage of their gold contents to the action of weak solutions of potassium cyanide, and which contain no appreciable quantity of base metal compounds soluble in such weak solutions. While strong solutions will extract a high percentage of the value from a much larger class of ores, no method has as yet been made known for overcoming the excessive chemical consumption and the consequent fouling of the solution accompanying their use.

In deciding upon the application of the cyanide process to the treatment of a new ore, it is, therefore, not sufficient to know, in a general way, that a high percentage of the gold is soluble in potassium cyanide. The minimum strength of solution which will be required to obtain satisfactory results, and the unavoidable loss of potassium cyanide by chemical decomposition, should be carefully ascertained by laboratory tests, as well as the permeability of the crushed ore to the leaching solution. An investigation should also be made to determine the ability of zinc to precipitate the precious metals after continued use of both the solution and the zinc.

JOHANNESBURG CONSOLIDATED INVESTMENT.

THE report of the Johannesburg Consolidated Investment Company (Limited) for the year ending June 30, which has just been issued, states that in November a London directorate was established, and at the same time the capital was increased from £350,000 to £850,000 by an issue of 300,000 shares of £1 each, at a premium of 10s. per share. In February the company purchased the entire assets and business of the South African Trust and Finance Company (Limited), and in connection therewith the capital was further increased to £800,000 by an issue of 133,000 shares at a premium of £1 10s. per share. The capital is thus now £800,000, in £800,000 shares of £1 each, of which 788,000 shares are issued and 12,000 unissued. By circular issued in November, the directors announced that arrangements were in progress for the extinction of the founders' rights to participate equally with the ordinary shares in any dividend declared in excess of 20 per cent. per annum. Under this arrangement the company acquired an option— which it has since exercised—from the holders of 17,000 shares carrying founders' rights, to extinguish these rights for an allotment of 25,000 fully paid shares, and the directors are gratified to report that they have since concluded an arrangement with the holders of the remaining 8000 shares carrying founders' rights to extinguish these rights on similar terms. Since the commencement of this year the business has greatly expanded, and the company has become interested in many very profitable important financial and mining enterprises. The company, by arrangements made in January with Messrs. Barnato Brothers, acquired from that firm the financial and commercial agencies in London of some of the most important gold mining companies in the Transvaal. In consideration of an allotment of 10,000 fully-paid shares of this company, Messrs. Barnato have transferred all such agency business as from 1st January last. The capital value of the shares—£10,000—and the accrued dividend thereon is charged against the profits of the year. These shares will now be allotted. Since June 30 further important agencies have been acquired. The amount to the credit of profit and loss, including the balance of £14,573 brought forward, is £989,029. The directors recommend that this balance be appropriated as follows:—An interim dividend at the rate of 20 per cent. per annum was paid in December on 350,000 shares, which absorbed £35,000; to payment of a dividend to shareholders registered on July 31, at the rate of 40 per cent. per annum on the issued capital of 788,000 shares, £157,600; to creation of a reserve fund, £400,000; leaving a balance to be carried forward of £396,429. The assets have been carefully valued, and the directors are of opinion that their estimate of the same will be more than realised. Of the stocks and shares in various undertakings held on June 30 many have since materially appreciated in value. House and landed property and shares in landed estates owned by the company have been valued upon a basis to return 10 per cent. on the capital value, inclusive of the premises occupied by the company, and to meet which the property account has been written down to the extent of £15,054. The present London offices being entirely inadequate to meet the requirements of the business, the directors have recently purchased a freehold site in Austin Friars, upon which a suitable and commodious building will be erected. Mr. G. W. Starr, late manager of the Primrose Mine, has been appointed consulting engineer to the company, and all mining enterprises with which the company is associated have been placed under his management and control. In view of the large amount of capital required to deal with undertakings which are constantly arising in connection with the development of the Transvaal, the directors deem it expedient to retain large resources on hand. The business since June 30 continues of a promising nature, and the directors take every opportunity to acquire interests in the further developments taking place in South Africa. Balance-sheet:—Liabilities: Capital account, £800,000; 788,000 shares issued at £1 each, fully paid, £788,000; 12,000 reserve shares (as per contra), £12,000—£800,000. Fixed deposits, £220,939; sundry creditors, £122,127. Profit and loss:—Balance, £951,029—£2,097,095. Assets:—Cash at bankers and in hand, £142,710; loans to mining companies and on the London and Johannesburg Stock Exchanges, repayable at short notice or call (fully secured), £366,630; sundry debtors, £273,395; real estate, house and landed properties and shares in same, £173,362; investments in mining properties and shares, and in financial, municipal, commercial and other undertakings, £1,121,901; sundry assets, machinery, office furniture, &c., £6506; reserve shares (as per contra), £12,000—£2,097,095. Profit and loss account:—Salaries (including audit fees), £7,729; directors' fees, £1950; rent, rates, and taxes, £1347; interest on deposits, insurance and exchange, £6014; house and landed properties, machinery, office furniture, &c. (written down), £17,440; purchase of agency business (10,000 Johannesburg Consolidated Investment shares and dividend on same), £12,000; general expenses, including printing and stationery, advertising licences, cables, postages, bank charges, &c., £3805; balance carried down, £840,299—£690,585. To interim dividend paid at the rate of 20 per cent. per annum on 350,000 shares, £35,000; to balance carried balance-sheet, £954,029—£989,029. Revenue on real estate, house and landed properties, £14,053; agency, secretarial and transfer fees, brokerage, commissions, &c., £19,977; interest on loans, £62,406; bad debt (recovered), £120; profits on mining properties, shares in mining and other companies and undertakings (the shares on hand taken at market value of the June 30, 1895), £594,029—£690,585. By balance from account to June 30, 1894, £14,573; by premium on shares (less expenses of issue), £334,156; by balance brought down, £840,299—£989,029.

MEETINGS OF MINING COMPANIES.

CONSOLIDATED GOLD MINES OF WESTERN AUSTRALIA, LIMITED.

THE first ordinary general (or statutory) meeting of shareholders in the Consolidated Gold Mines of Western Australia (Limited) was held on Monday, at Winchester House, the chair being occupied by Mr. A. F. CALVERT.

The SECRETARY (Mr. W. H. Jeffers) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—As you have been informed by the notice which the secretary has just read, this is the statutory meeting of our company, held in accordance with the requirements of the Companies Act within four months of our registration. In the usual course of things there is little to be said and will have to be done at these statutory meetings. As a rule, they are called as late as possible in the hope that something may occur which will serve as a suitable topic for the Chairman to dilate upon. For our part we have postponed calling this meeting until as late a moment as the law allows, not because we had nothing to tell you, but because we have had much to do in the meantime. In order to keep you fully posted in the interim with information about our properties, your directors circulated a short while ago an exhaustive preliminary report, and we now welcome the opportunity that the meeting gives us of supplementing that intelligence, and explaining as clearly as possible the present position and future prospects of the company. It is, as I need scarcely remind you, less than a year ago since the old Consolidated Company was issued, with a capital of £90,000 and a total area of 18 acres. On these 90,000 shares we have since allotted a share bonus of 25 per cent., and in consequence of the amalgamation the new company will have the command of £375,000, and this without appealing to the public for any of the additional money required. Our working capital and our acreage have also been proportionately increased, and we have the command of £105,000 subscribed and reserve for working the 144 acres of territory which we now possess. These changes, gentlemen, have not been accomplished without constant work and much anxious thought, and we may, perhaps, be excused if we allude with satisfaction to the success of our efforts. Our whole aim in projecting and carrying through this important amalgamation of big interests was to place our company in the strongest possible position, and make it second to none amongst West Australian mining ventures. We had already a sound and valuable property in our Coongan Mine, and we have now secured nine additional and separate gold mining properties, which are so situated that they can be worked in three groups under one general manager. The benefit derived from working the properties in groups is, of course, the large saving that it allows of working capital, and the advantage of our large acreage is twofold. In the first place, we should be able, if we so desired, to dispose of a large block of the remaining land to a subsidiary company; while, on the other hand, should any one of our claims disappoint when developed, the machinery, staff, &c., could be, without difficulty, removed to a more promising portion of our property. Our working capital, I believe I am correct in asserting, is the largest working capital of any existing West Australian mining company. You will readily understand the advantages to be gained by a company like ours working in harmony with another powerful company having its properties in the same neighbourhood, and you will be glad to hear that your directors have entered into arrangements for working, to some extent, in conjunction with the North-West Australian Gold Fields Company. Next to the Consolidated, the North-West Australian Gold Fields is the largest mining concern in the North-west. It has several valuable properties, and a substantial working capital and reserve of £70,000. We consider that this working arrangement between the two companies gives us the premier position on the gold field. The two separate properties we possess that make up our 144 acres are the Coongan, the Peewah, the Peewah Extended, and the Nicol Mine, of 18 acres each, and the East Mallina, East Mallina Extended, West Mallina, Lord Byron, Westward Ho, and the Oriental Mine, of 12 acres each. You may imagine that there has been a great deal of complicated and heavy work in carrying out the liquidation of the various companies interested in the amalgamation, and in the transfer of the various properties from companies, but in the short period since our registration this has all been got safely through without any hitch, and I am glad to be able to tell you to-day that all these properties have now been legally transferred to the Consolidated Company. With reference to the management of our properties in Western Australia, our endeavour has been to enlist the services of thoroughly competent mine managers, and men in whom we can place implicit confidence, and it is the opinion of your directors that their efforts in this direction have been entirely successful. For the Coongan group we have appointed Mr. Walter Marsh and Mr. Owen, who will work in conjunction in the management of this group, and in that of some of the Talga Talga properties of the North-West Australian Gold Fields. The joint management, which is the outcome of our arrangement with the North-West Company, reduces the expenses in both instances to a comparatively small figure. Mr. Marsh, whose mining career is well known to some of the members of your board, as well as to our managers, Messrs. Panchard McTaggart and Co., has had a very wide experience in India and Australia. He has been on the spot for some time, and has been actively engaged in systematic opening-up work, and in superintending the removal and re-erection of our machinery on the property. Mr. Marsh's last cablegram announced a further improvement in the mine, and we are in daily expectation of hearing that he has recommenced crushing on the Coongan group. Mr. Samuel Barrell, who has been placed in charge of our properties in the Nicol district, has had considerable experience in Victoria, as well as in the North-west, and he superintended the opening-up and development of our Coongan Mine before it was taken over by this company. Mr. Barrell will be assisted in the management by Mr. Payne and by Mr. Garvey, who will have charge of the machinery. Both these gentlemen, who were sent out from this country, arrived at the Nicol on June 10 last. I may tell you that we have been strongly recommended to add to our crushing power on the Nicol immediately, but we have decided to adhere to the cautious policy we have hitherto followed and test the mine thoroughly with the machinery that we have already got on the spot. Should the results of these tests come up to our expectations, we shall lose no time in increasing our crushing power. As our legal manager we have appointed Mr. Augustus R. Roe, of Roebourne. Mr. Roe is, without question, one of the leading men of the North-west. For many years past he has adjudicated on all the important legal cases in the district, and he sits on the Bench there as the Special Commissioner of the Government. I think, gentlemen, that you will agree with your board, in thinking that, in securing the services of Mr. Roe, they have obtained a valuable officer to safeguard your interests. After receiving the Coongan crushing we next expect to obtain practical results from the Nicol district and from the Peewah and Mallina group, the machinery for which was last sent out, crushings will follow in due course. I consider that I should lay special stress upon the favourable nature of the reports upon our properties that we hear on all sides. In the matter of gold mines, as in every other matter in which many persons are interested, it is usual to find that more than one opinion exists with regard to their value, and it is not unusual to hear adverse opinions. Unanimity on the question of a mining property is rare indeed, but up to the present I have heard no adverse opinions expressed as to the value of these Consolidated properties. From my long and close connection with the North-west district I have exceptional opportunities of meeting most, if not all, the men who come to England from that part of the colony, and I can assure you that, without exception, everyone I have met who is acquainted with one or other of our mines, has spoken in the highest terms of it. The reports that have appeared in the West Australian papers fully confirm the high opinion that has

* A paper read before the American Institute of Mining Engineers.

† As a possible explanation of this fact, I take pleasure in calling attention to Mr. MacLaurin's paper in the *Journal of the Chemical Society* for February, 1895, in which he clearly and convincingly shows that the rate of dissolution of gold in cyanide solutions decreases as the viscosity of such solutions increases, and as the absorption-coefficient of oxygen decreases.

been so generally expressed on our properties. Gentlemen, although I am tempted to speak further as to our prospects, it is safer to ask you to judge for yourselves from what I have been able to tell you, and let the future speak for itself. With mining matters it is best not to prophesy before one knows. Mining is essentially a speculation, but we believe that in the Consolidated property you have a good speculation. Our properties have been tested, and the tests have been satisfactory. That further development will continue to bear out the truth of these tests we both hope and believe. The promises and anticipations that were expressed at the statutory meeting of the old company created a good deal of sensation, especially as it was stated that we had secured a large interest in other companies without imperilling a penny of our own money. Yet this announcement has been borne out by facts. It is a satisfaction to me personally to remember that an investor in 100 shares in the old company would, with a bonus, now hold over 125 shares in the new company. This cannot be considered a bad profit earned on an investment of £100 in a few months, and I trust, gentlemen, I shall shortly be in a position to congratulate you and ourselves on a corresponding profit. I may also mention that last week Mr. T. R. Byass called upon me. He is a man who is very well known in West Australia. He has been instrumental in opening up the Bamboo Creek gold field, and he has worked a lot of properties there. He told me he had visited the Augusta and the Nicol Mines just before leaving West Australia, so I asked him if he would come to the meeting and make a statement as to what he thought of the properties. He replied that he could not address the meeting, but he handed me this statement regarding the property this morning, which I will now read:—"I arrived in London from Australia a fortnight ago, but left immediately for the country, and only returned to town during the past few days. I have been asked by Mr. Calvert to give an opinion of the properties in which the company is interested, but would prefer to confine my remarks to those which I inspected just before leaving the North-west—namely, the Coongan and the Nicol Mines. With regard to the Augusta, besides being my own opinion, it is also the opinion generally held in the district, that it is second to none on the field, and I am confident that it will turn out well. With regard to the Nicol properties, which were the last I inspected in the colony, I prefer the Lord Byron out of the groups which you hold. This claim I tested thoroughly, and although Mr. Calvert informs me that he will be more than satisfied if these properties average 1 ounce to the ton, I am confident from what I saw, and the tests I made, that it will return far more than that amount. I did not examine the other leases very carefully, but the same reef traverses them all in a straight line, and I am of opinion that there is a very large body of ore, which it will amply pay to work.—(Signed) T. R. Byass." We have a gentleman with us to-day—Colonel Henderson, one of the members of the board—who was the Chairman of the late Consolidated Company, and I should like to hear a few words from him.

Colonel HENDERSON said: Mr. Chairman and Gentlemen—As regards this present company, after the remarks which have fallen from our Chairman, I do not think there is very much for me to say. I have very recently joined the board, and, therefore, I am not quite so well up in its workings as some of my co-directors are. I can, however, say this of one of the men whom we have selected to send out—namely, Captain Marsh, who is now managing the Coongan Mine, that I have had some years' experience of him personally, and I do not think you could possibly get a more reliable, experienced, and honest man than he is. We can place implicit confidence on whatever he sends us home in the way of reports. If they are bad, we may know he has good reason for making them so; and if good, then we may know still more—that he has abundant reasons for what he says. The reports up to date, as the Chairman has told you, continue to be satisfactory, and we, on this side of the water, are promptly supplying all the facilities which they demand from us in the way of hauling, winding, and pumping machinery, tramways, and such things; and if and when they demand from us a battery for crushing, and prove to us that we have at sight a sufficient quantity of good paying ore, which I hope will be very shortly, we shall immediately comply with their request in that matter too. But it is with regard to the old company, of which I was Chairman during its career, that I wish to speak to you. As the Chairman has told you, I held out hopes to the shareholders of that company that they would get a good bonus in shares. It was a good deal commented upon at the time, but I am glad to be able to state, on the authority of the Chairman, that that bonus has actually been allotted, and will be distributed to the shareholders within a very few days, so I think the shareholders of the old company will do us the justice to say we have been able to keep faith with them. As far as I know, our prospects are very good, and I trust that, whether we meet 12 months hence or sooner, we shall be able to give a very good account of ourselves.

Mr. A. TROTH asked whether any of the directors proposed to visit the mines this year.

The CHAIRMAN, in reply, said that he could not answer for the other directors, but he was able to inform the shareholders that he, personally, would certainly be leaving England for Australia within the next two months. On his arrival there he would look over all the properties of the company, and see what was going on. (Hear, hear.)

Mr. TROTH proposed that a hearty vote of thanks should be accorded to the Chairman and directors for the able way in which they had explained matters to the shareholders. He hoped they would reap the success they were expecting.

Mr. SPRINGTHORPE seconded the resolution, which was unanimously carried.

The CHAIRMAN, in acknowledgment, said: Gentlemen—I have to thank you on behalf of my co-directors and myself for the vote you have passed. As in the past so in the future we shall continue to do our best, and we hope we shall be successful in our management of this company. (Applause.)

The proceedings then terminated.

RAND-RHODESIA EXPLORING COMPANY, LIMITED.

An extraordinary general meeting of the Rand-Rhodesia Exploring Company (Limited) was held on Monday, at the Cannon-street Hotel, Mr. W. A. WILLS (the Chairman of the company) presiding. The notice convening the meeting having been read.

The CHAIRMAN said: Gentlemen—You have heard the notice convening the meeting, and no doubt a good many of you have come here with your ideas more or less fixed upon the subject of this proposed increase of capital. Perhaps before going into that increase it would be well that I should take the opportunity of giving you some information as to the progress of the company; that I should tell you something about its management, and then give you the reasons for which we suggest this increase of capital. You will remember that this company is still practically a young concern. It was registered in December last, and at the end of June we declared a 10 per cent. dividend. At the same time, we sent out a circular to the shareholders announcing that the company had already earned profits, some of which were realised, and some of which were still unrealised, to the extent of about 50 per cent. of the issued capital of the company. It gives me a great deal of pleasure to report to you that since then that position has been materially improved, and if you like I will give you a few data as to the realised transactions, and as to our unrealised profits. With regard to the realised profits, I may tell you that this company acquired several syndicate interests in some large blocks of new shares, which were originally purely Johannesburg companies, and which have now been introduced on the London and Paris markets. We held a considerable block of New Orion shares, which was sold at a profit, and of Minerva, also sold at a profit. A great many of these shares have since materially appreciated in value, and may go still higher, but our policy has been one of constant realisation. In other words, we are not a company for the

collection of scrip, and we think we are following your wishes in realising profits when opportunities occur. We had an underwriting interest in Bulawayo Waterworks and the Matabel Central Estates, both of which cost us nothing, and the former of which has been realised at a good profit. We had a substantial profit over a parcel of the Monastery Diamond Mine shares, which has been realised. We had a considerable interest in the Rhodesia Gold Fields, at par; this profit has been realised. We had a considerable interest, at what I may call a starting price, in the Hraham-Monitor Syndicate and in the Vesta Gold Mining Company. These shares have also been disposed of at a profit. In each of these cases the prices we sold at have since improved, and there is every possibility that they will still further improve, but it can be easily understood that we are not able to hold all the shares we buy. With regard to partly-realised or unrealised profits it is here where our main success has been achieved. We hold 23,500 shares in a company, the name of which it is not advisable to publish, which cost us on an average 7s. 6d. apiece. The present price is about 27s. 6d. We have disposed for cash or under option of the whole of this large portion of this large parcel to an important Paris firm, on a basis which should leave a profit of £19,962 10s. We have also 3275 shares in a small syndicate, which we acquired at 40s.; they now stand at £4 in the market. We have 5000 shares in the Africa Trust, which cost £1. These shares are now at £3 in the market, and as influential German people have taken a large option of the reserve issue at a big premium, there is every probability we shall get a still higher price when we realise. We have also the call of 5000 Africa Trusts at 25s., so that, taking to-day's paper values as a basis, you have made something like £22,000 out of Africa Trusts alone. (Applause.) We have also nearly 3000 shares in another small syndicate which cost us par. These have improved to £3 since we bought them, and in all probability they will go to £5. We have a small share in an important pool, which shows a profit of about 100 per cent., and several other interests. The managing director has made out a statement, showing our position to date. That I find to be this—that over and above the 10 per cent. dividend paid at the end of June, we have made a profit, partly realised, of about 100 per cent. on the capital of the company. (Applause.) The shares which we still hold seem to be improving, rather than losing their position in the market. In addition to that, we have about half the capital intact, and in the bank. (Applause.) Well, gentlemen, this is a very small company, having only an issued capital of £46,000, but I think I have said enough to show you that the company has influential connections, and that we are in a fair way to do a very steady and sound business. But I think you will agree with me that we are hardly in a position to take proper advantage of the opportunities of sharing in the tremendous schemes that are now before the South African market. I mean to say this—that when a large firm of high standing is floating some new Deep Level enterprise or a large territorial concession, we frequently have the opportunity of putting in (say) £10,000 or £20,000. With a capital of £46,000, of which one-half is already invested, you cannot avail yourselves of many of these opportunities. To remedy that, there were two courses open to the company. One was to increase the ordinary share capital; the other was to issue preference shares or debentures. Well, gentlemen, Rand-Rhodesia shares stand to-day on the market at £2, and I think they are worth rather more than that. It would be hardly fair to the original shareholders and the present shareholders of the company to water the stock at anything like that figure. On the other hand, there is a very large class of investors, both in this country and on the Continent, who are quite satisfied with a 6 per cent. preference interest, where that interest is in a company that is honestly managed and conducted with some measure of success. Under these circumstances, we think that it would be better to ask the shareholders to authorise an issue of 6 per cent. capital, rather than to increase the ordinary share capital of the company. This is the suggestion with which we come to you to-day. I think, on the other hand, that perhaps, not immediately, but from time to time, we shall easily place either here, in Paris or Berlin, the whole of the 6 per cent. issue, which will then give you the command of £100,000 of fresh capital at a cost of £6000 a year. I feel quite certain in my own mind that this will be the best course that this company could pursue, and that the £100,000 will be worth infinitely more than 6 per cent. to us, even in bad times. Before moving this resolution, I would like to tell you that some progress has been made in organising the management of the company. The resident director in Johannesburg, Mr. Lomas, has returned to that town, and there is no doubt but that he will be able to obtain for us participations in blocks of ground and farms in that country. We have opened a Paris office, and the Count de Montjou and M. Jules Agbion have been constituted as a Paris committee, and have already, I may say, in the case of Count Montjou, rendered excellent service to the company in placing the large line of shares I mentioned to you. At present nothing further occurs to me to tell you about the progress of the company, but if any shareholder have any questions to ask, I shall be glad to tell him anything which can be told without prejudice to the interests of the company. I dare say Mr. Cannell has some remarks to make. He has accepted the post of the managing director to the company, and is now devoting a large share of his time and attention to its affairs. I have now to move:—

1. That the capital of the company be increased to £150,000 by the creation of 100,000 new shares of £1 each. 2. That the new shares be called A shares, and that the holders thereof be entitled to a cumulative preference dividend at the rate of 5 per cent. per annum on the nominal amount of such shares, which dividend shall be payable half-yearly.—3. That the company shall be entitled to create further new shares to rank in all respects *pari passu* with the said A shares.—4. That the rights of voting conferred by the A shares shall be, on a show of hands, the same as those conferred by the ordinary shares, but on a poll each A shareholder shall have one vote for every complete four shares held by him.—5. That, in the event of the company being wound up, the surplus assets thereof shall be applied, in the first place, in repaying to holders of the A shares, and of any other shares entitled to rank *pari passu* with them, the full amount paid up thereon, and that, subject as aforesaid, such surplus assets shall belong to and be divided among the other members of the company.

Mr. ARNOLD seconded the resolution. He wished to know, at the same time, whether the original powers given under the Articles for increasing the capital had been exhausted. He also asked whether there were any absolute arrangements for placing this new capital. He thought the shareholders might congratulate themselves upon the position now occupied by the company, and they might hope that when the time came for another dividend it might be an even more satisfactory one than the last. (Applause.)

The CHAIRMAN said that when the company was floated it was practically at the beginning of the great Kaffir boom, when the facilities for raising capital were nothing like what they were at present. Under the circumstances, the issue of the capital of the company was guaranteed by a small syndicate of persons, in which syndicate he had a share. The issue was guaranteed at par, and the guarantors received, therefore, the option of 25,000 shares at par for three years. That option had been exercised in practically every case, but there were still about 4000 shares which had not been called up. With regard to the new capital, they had made no arrangements for the issue of this, feeling there was no necessity to do so until they had received power from the shareholders. He might say there would be no underwriting, and beyond the ordinary advertising charges and commission to the company's brokers of 2½ per cent., there would be no charges of any sort or kind. (Applause.)

The CHAIRMAN then put the resolutions to the meeting, when they were unanimously agreed to.

On the motion of Mr. ALLEN, a cordial vote of thanks was passed to the Chairman, and the proceedings terminated.

AUSTRALIAN MICA.—Mica is known to exist in many parts of New South Wales, being met with in the numerous granitic areas which occur in various districts of the colony, especially in the coarsely-crystalline granitic formations of the Silverton district, and elsewhere in the Barrier ranges. Hitherto, it has never been worked, although there is a considerable demand for it, especially if the mica can be obtained in blocks of fairly large size, capable of being split easily into thin plates.

NOLTZYKOP GOLD MINES, LIMITED.

The statutory meeting of the Noltzykop Gold Mines (Limited), South Africa, was held on Tuesday, at the Cannon-street Hotel—Mr. D. MERRICK, the Chairman presiding.

The SECRETARY (Mr. D. Langston-Faddy) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—The law demands that we shall hold what is termed a "statutory meeting." This obligation, however, in our case detracts in no wise from the pleasure with which your directors now call you together, for, although we have no business to transact, it gives them a desirable opportunity of placing before their fellow-shareholders a few facts and details regarding the extensive, and, as we believe, most valuable property acquired by this company. The Noltzykop, as most of you are doubtless aware, consists of 103 reef claims, having an area of about 142 English acres, and with this property we became possessed of machinery, admirably suited to our requirements, fixed and in good working order, to the value of nearly £20,000. This machinery includes a 10 stamp battery with 850 lbs. heads, 8 feet amalgam tables, Frue vanners, engines, boilers, hauling gear, tramways, and every appliance requisite for the successful working of a gold mine on the most modern principles, and arrangements have already been made whereby crushing will commence as soon as sufficient ore has been raised to ensure the regular and continuous working of the machinery. One most important feature in connection with this property is that we have not acquired a mine unproved and bearing only surface indications of gold. Already two shafts have been sunk, one to a depth of about 145 feet, and another to a depth of about 70 feet, while instructions have been given to at once sink the main shaft a further 200 feet. Several crosscuts have been made, and headings driven along the lode a distance of about 1200 feet, the reef varying in thickness from 2 feet to 12 feet. Assays have been made by our engineer on the property with most gratifying results, the quartz from the lowest levels having been found much richer than that from the upper levels, and there is every indication that the ore will not only improve in value, but also in character as greater depths are attained. A portion of our property is a forest thickly timbered with trees of such a character as will yield a sufficient quantity of timber for all mining purposes, including the erection and maintenance stores, dwelling houses, &c., and will provide a sufficiency of fuel to keep all engines and machinery running; this, being on our own estate, is obtainable free of cost, except for felling and haulage. Another most important feature, and one most vital to all mining enterprises, is the water question. Upon this I am happy to state your minds may at once be set at rest, for we have a magnificent river flowing through the very heart of our property, from which we can obtain an almost unlimited supply of water at all seasons of the year. The river is within a few yards of our machinery and battery houses, and ample pumping machinery has been provided and fixed. The fact of our having this abundant water supply is, indeed, of twofold interest to us, as it not only provides ample water for all milling purposes, but will enable us to exploit advantageously the auriferous alluvial deposits which are known to exist on our property. Having touched upon the question of these alluvial deposits, I will now endeavour to give you a brief résumé of what we know of their nature, character, and extent. We have already acquired upwards of 500 of these alluvial claims, and on a great number of them the top lift has been stripped off, showing in every case alluvial deposits beneath; these deposits, wherever tried, have given varying but most gratifying results. In no case have we been disappointed in finding gold—in some cases where least expected. I may mention a case in which 1 ton of deposit yielded to simple washing treatment 2 ounces 6 dwts. of gold. It would be beyond the dreams of avarice to expect such magnificent results from the whole of the enormous deposits that here exist, but sufficient is known of them to warrant the belief that something approaching these results will be obtained throughout. Your directors have already received offers from parties desirous of working these deposits on royalty, but believing the interests of the shareholders would be best served, have refused all overtures in this direction until their full extent and value are better understood, as we have every reason to believe this will eventually prove one of our most valuable sources of revenue. Should our expectations as to the value and richness of these deposits be only partially realised, immediate steps will be taken to avail ourselves of the facilities afforded by our abundant water-supply to work these deposits on a large and extended scale of hydraulic and other modern and improved means. And now, gentlemen, I come to what you may, perhaps, consider the most interesting part of my speech. We have, in addition to that already described, a further property at Lydenburg, consisting of nearly 200 claims, which we have every reason to believe are very valuable indeed. From reports received on parts of this property, from Mr. J. J. Hamilton, an engineer well and honourably known, we are of opinion that they constitute a most valuable asset, and you will doubtless be pleased to learn that we have already sold a portion of them for the sum of £20,000 in cash, and 10,000 fully-paid shares, which shares, if sold at the market value, would realise about £12,000; this result I think most advantageous to the company as it would be impossible to work all our properties ourselves. I have seen it expressed, and have been personally asked a good many times what your directors intend doing with this money, and to one and all I have said it is early days to discuss this matter, but you may rest assured that the matter has our earnest consideration, and within a very short time we intend calling you together again, as several important negotiations are in progress, which, if completed, will add materially to our funds. Now I have touched upon nearly all the points connected with this undertaking, and without being egotistical, think you may safely leave the rest in our hands. We are interested largely as shareholders, our shares having been purchased and paid for in the market. In conclusion I regret to see so few shareholders here present, but I have noticed that at meetings of other companies that are successful which I have attended as a shareholder the same has been the case; it is only when disaster overtakes a company that shareholders turn up in great numbers, but from my point of view, I am of opinion that when your board have been successful in their efforts, it is only fair to expect a mead of congratulation, and take a few of the halfpence with the kicks. One word more. In the Articles your directors are only allowed £50 each per annum, which you may perhaps consider is quite sufficient, but you must bear in mind that to conduct an undertaking of this magnitude a vast amount of time and attention is required of your directors, and we venture to suggest that this remuneration is very inadequate; however, we will leave this matter entirely in your hands, and at the meeting to which I have referred, if the results justify our expectations—which we are sanguine enough to believe they will—we shall place the question before you for consideration. Before closing, I gladly avail myself of this opportunity of congratulating my fellow shareholders on the possession of such a unique and valuable property, offering as it does such brilliant prospects for a bright and prosperous future. If any shareholder would like to ask any questions, I shall be pleased to answer him.

A SHAREHOLDER: I should like to ask why, Sir, seeing that all necessary machinery is fixed and in working order, crushing has not already been commenced.

The CHAIRMAN: Our engineer advises us that before work of this character was commenced it was desirable to complete such necessary work as connecting levels by winzes, and securing means for overhead stopping in lieu of underhand, which had hitherto been adopted; the former means being much more economical than the latter; this work, however, is now nearly completed, and our engineer hopes shortly to be in full swing.

Mr. THOMAS proposed a vote of thanks to the Chairman, which was briefly acknowledged, and the proceedings terminated.

THE WAITEKAURI GOLD MINING COMPANY, LIMITED.

The first ordinary general (or statutory) meeting of the shareholders in this company was held on Wednesday, at the Cannon-street Hotel, the chair being occupied by Mr. THOMAS RUSSELL.

The SECRETARY (Mr. Charles Akers) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—Generally at statutory meetings there is no business to transact and no accounts to render, and often not much information to be obtained. It is very seldom that it falls to the lot of directors to meet shareholders at the ordinary statutory meeting with such a full and satisfactory account of their enterprise from every point of view as is contained in the report now in your hands, and my duty as Chairman to-day is made peculiarly easy and pleasant by the abundant information already given in the report; indeed, the report has robbed me of my speech, for it contains everything of importance we knew up to the date of preparing it. The property we have acquired, which we believed to be a good one, is very much better—larger and richer than we had supposed when we purchased it; and though we have not long been owners of it, yet by an energetic course of development we have got to know so much more of it as to increase its value enormously, with this further element, that though the drive has been carried in good gold for 646 feet the large and rich reef upon which we are driving still continues rich. The report brought the date of the exploration of Corbett's level up to August 8, the drive then being 520 feet in length; two weeks' drive have since then been reported by cable. Up to August 15, 13 feet more were driven, the stone averaging £8 7s. 9d. per ton, and up to August 22 (six days ago), the latest date reported, 13 additional feet were driven upon stone of the value of £6 6s. 3d. per ton, or an average for the fortnight since the report was prepared of £7 7s. per ton, being considerably higher than the averages up to August 8 last, and on August 8 last, and on August 22 we had upwards of 2000 feet more to drive into the hill before reaching our boundary. We have by our explorations up to date conclusive proof that the property we are engaged in developing is one of the most valuable mining properties in New Zealand; indeed, it rivals in value and importance the Waihi Mine itself. Where else can you find—except at Waihi—a reef which for 546 feet is over 20 feet wide, uniformly good, and worth over £5 a ton for 646 feet in one line of reef. The developments up to date fully warrant the present price of the shares, indeed, the public seem to keep an eye on the progress made, and shares advance in price as our successful exploration continues. Though at the time we felt safe in making the purchase of this valuable property, and we are now certain of much larger results than we had anticipated, yet we do not think that we have reached the limit of the developments we have in hand. We shall drive Corbett's level continuously to the boundary, at which point we should have about 400 feet of backs. I do not expect to, but we may, carry gold with us all the way for the 2000 feet we have to drive, but the indications are that we shall drive on gold for some time yet to come; there are no indications of its giving out; but, on the contrary, the reef appears to be getting richer as we drive into the hill. Our battery level will very shortly be 100 feet below Corbett's level, and we shall go on steadily, with the great tunnel still 300 feet lower down. I have already told you that my speech has been robbed of its novelty, and is really contained in the full and complete report you have in your hands. But for the many who will not read long reports, and to aid your memory in the future, I briefly put the points in connection with this great property brought out by the report, and other more recent information:—1. We have plenty of working capital. The mill has been earning money, and our cash working capital of £35,000 is still practically intact. We have a further reserve of 14,000 shares, which within a very few days we could sell, in case of need, for £70,000, but do not suppose we have any such idea. I only note it to show the strength of the company, and as an important point to be borne in mind.—2. Our capital is small for such a large and valuable property, nominally £150,000, yet only £138,000 have been issued, and, practically, we have £35,000 cash in hand.—3. We have a great reef within a large area, rich over an exceptionally long line, the two runs of gold, up to August 22, measuring a distance of 646 feet, and at last advice (August 22) we were still driving upon good gold, while we have upwards of 2000 feet still to drive before we reach the boundary.—4. There are also other gold-bearing reefs upon this property showing stone of good quality, and apparently of considerable value.—5. Komata: Then we have the Komata property, which, when a little further information is obtained, we shall probably deal with as a separate company for the benefit of the Waitekauri Company. This property, up to the time of our purchase, yielded large returns and contains rich lodes, though I do not wish you to suppose that the Komata property is so valuable as the Golden Cross, upon which we are immediately engaged.—6. The ground we are working in is favourable for cheap mining development; without being too hard and costly, it is soft enough to render mining operations cheap and easy, and the formation and character of the country rock are most favourable for gold.—7. We have large water-power—the best and cheapest of all power—though no doubt for extended milling purposes we shall have to supplement it by power transmitted by electricity from another source, or else by steam-power.—8. We have abundance of water and timber on the property for mining purposes.—9. We have no problems to solve; these have been solved for us by other companies at great expense, and we avail ourselves of their knowledge, free of cost—I refer to the dry crushing process, and the applicability of cyanide for the purpose of saving our bullion.—10. You will observe that we have arranged for the abolition of the annual royalty which mineowners in New Zealand have found so oppressive and irritating. Our arrangement with the Cassel Company provides for the abolition, as far as we are concerned, of future payments, and we now have the right to use the cyanide process free of cost. This is a considerable item, if we keep in view the developments which are now taking place, and likely to continue in the future.—11. These are salient points in connection with this Waitekauri property, which seems likely to become famous in the annals of New Zealand mining, and which in the report and speech I have set out at some length in order that every shareholder may get a clear idea of the value of his property. But the object of greatest immediate interest is to know how soon we are to begin to realise in dividends some of the great wealth which undoubtedly is in this unique property. The stamps at the small mill we have now running are too light to be effective, and quite unsuited for dealing with large quantities of stone; the mill is most usefully employed in crushing the ore we are taking out as we drive upon the reef, and by this means ascertaining beyond question its actual value, and while doing this valuable work it yields a profit which is available for a small dividend if necessary. Our arrangements have been made for a battery of 40 head of stamps. It will be a battery of modern type, capable of dealing with 20,000 tons per annum, and will be ready in May next, and nine months hence the new mill should be producing dividends; but, though it will be a powerful mill with 40 heavy stamps, it is manifest that it will not be large enough to deal with the quantities of ore which our more recent works have brought to light in this great property. I am not in a position to tell you to-day what further milling extension we shall propose. Mr. Henry Russell, who has hitherto managed the property, will be in this country within a month, and after conference with him we shall determine this important question. It is quite clear we shall require a much larger battery than the 40 head arranged for, and Mr. Barry, the superintendent of the Waihi Mine, who is supervising the local management of the Waitekauri Mine, foreseeing the necessity for a larger battery, wrote me by the last mail that he is arranging the 40-stamper mill so as to admit of such enlargement of it as the directors may determine. The average value of the ore as shown by the milling returns of the Golden Cross ore from the

beginning and up to date is nearly £6. This ore should be mined and milled for 30s. a ton, but even taking the total cost at very much more, we still have a profit of £4 per ton; 20,000 tons of ore—which is about the output we may expect from 40 head of stamps—will yield an annual profit of £80,000. I give you these few figures, based upon actual results from the mill returns as far as the value of the ore is concerned, and approximate as far as mining and milling are concerned, leaving you to make their application as you feel disposed. They will also afford a basis for calculation for an increased output after further enlargements of our mill. At the recent Waihi meeting, when we told you of the valuable option we had reserved for you of taking 20,000 Waitekauri shares at £1 each, I gave you my advice to hold them. Those of you who took that advice, wholly or in part, have greatly profited by the hint I then gave. It is not wise to prophesy before you know, but sometimes "coming events cast their shadows before," and I had more than a strong conviction that the advice I then gave you was right. I have more evidence now upon which to found the advice I give you to-day, and which is to hold your shares for 12 months, and I venture to say that if you do so you will give me a hearty vote of thanks at our next annual meeting thereafter. With regard to your holding in this property, it is and always has been beyond the reach of speculation. It is a mining investment. An investment which, from all its surroundings, promises to be one of the first order, which will yield you handsome dividends for many years to come—how many years, it is not possible to say; but from appearances, it will be years beyond the lives of the present shareholders. There is a strong family likeness between this property and the Waihi property. From neither of them can you obtain specimen stone of great value, but I do not know of any mines which undoubtedly contain such vast masses of payable stone where you can cut and come again, and still there will be plenty left behind. The only difficulty we have is that of reducing ore in quantity, and rapidly extracting the precious metal from it. It is a necessity in connection with both undertakings that we have to resort to dry crushing, and dry crushing is a more slow process than wet crushing, but it is a certain one. Experience has taught us that by careful manipulation we can increase our output. We have done so, and are doing so at Waihi, and as we progress in this direction we shall in both instances increase our profit, until, I venture to say, it will arrive at a point which will satisfy the most sanguine shareholder.

Mr. A. ROTHWELL, in proposing a vote of thanks to the Chairman and board, said the shareholders were deeply indebted to the directors for the talent they had displayed in picking out such a valuable property and securing it at so moderate a price. The Chairman had so clearly explained the position of the company that every shareholder must have come to the conclusion that they were "in for a real good thing." (Applause.)

Mr. BUCKLER seconded the motion, which was carried by acclamation, and the proceedings terminated.

EAST POOL.

A thirteen weeks' meeting of East Pool adventurers was held on the mine on Monday, when Mr. J. R. BRANWELL presided over a large attendance.

The accounts showed labour costs amounting to £5380 12s. 3d.; merchants' bills, £2367 6s. 6d.; Wheal Agar (contribution to water charges to end of July, 1895), £200; Illogan parish rates, £57 15s. 6d.; Stannary assessment, £7 16s. 1d.; total, £6013 10s. 4d. On the credit side it appeared that the tin sold realised £8123 19s. 11d.; copper, £70 5s. 6d.; arsenic, £1263 11s. 9d.; discounts, £48 7s. 3d.; dues in account, £33 2s. 6d.; carriage, £19 3s. 1d.; sundries, 18s. 9d.; and income-tax off rents, £2 7s. 3d. There was a loss of £446 14s. 4d.

Mr. CORNELIUS BAWDEN (purser of Wheal Agar) asked to be allowed to remain at the meeting. He bought 10 shares in East Pool from a gentleman, and sent to have them transferred on Wednesday morning so that he might be present at that meeting. He was very anxious to be present, and would give £5 to be allowed to do so—but the reply from the purser was that the transfer was tendered a day too late. It was very unusual that the transfer-books should be closed six days before the meeting.

The CHAIRMAN replied that he was sure they would all be delighted to have Mr. Bawden's presence. If anyone had said he had no right to be present he had done so without consulting the Chairman. The presence of Mr. Bawden would relieve them of a certain amount of difficulty because—it was no news to anyone—the water question had been a matter of serious trouble.

The PURSER explained that the notice sent out to shareholders stated that the books would be closed from August 20th to August 26th. He had not told Mr. Bawden that he had no right to be at the meeting.

The CHAIRMAN then moved the adoption of the accounts, remarking that the past quarter had not been a very bright one, and he supposed this was the worst balance-sheet they had ever presented. The tin realised amounted to 198 tons last quarter, against 183 this, a difference of 15 tons, the average price being £34 15s. 3d., as against £33 9s. 3d. this, realising £6846 4s., as against £6123 19s. 11d., a decrease of £722 4s. 1d. The tin stuff brought to the stamps was 7192 tons last, against 7234 this. Although there had been no diminution in the quality of stuff, the average produce had been poorer than it was, being 37 lbs. as against 40 lbs. Captain Bishop told them that they would have had more stuff, but for the lets and hindrances during the quarter, the strike and the holidays preventing work for ten days, which accounted for the ten tons decrease in the quantity of tin. Therefore, they had a loss on the present quarter of £400, and the question for the meeting was whether they should make a small call, and so wipe off the balance and maintain their reserve fund intact. Having in view, however, what Captain Bishop had told them in the report, knowing that the price of tin was a fraction better and would possibly continue to improve, the committee were inclined to carry forward the loss and not make a call. (Applause.) Well, it seemed at all events that the proposal found acceptance at the hands of the adventurers; so ready were they to receive dividends, but anxious to avoid a call.

Mr. WOOLCOCK seconded the motion, and said that though for many years he had the pleasure of seconding the adoption of the accounts, he did not remember there ever having before been a suggestion of a call. He most sincerely hoped that at no distant date the accounts would show a much better balance on the other side.

The motion was then put and carried.

Captain Bishop presented the following report:—

Engine shaft. At the 300 fathom level the crosscut is driven north towards the new north lode 11 fathoms. We hope to reach the lode in about 5 fathoms more driving. The 280 fathom level west on the north lode is worth £7 per fathom. The winze in this level is worth £15 per fathom. The 265 fathom level west is nothing to value. The 252 fathom level west is worth £3 per fathom. The 240 fathom level west is worth £3 per fathom. The winze below the 232 fathom level on the Great lode is communicated with the 222 fathom level. We are driving a level east from the last mentioned winze, which is worth £70 per fathom.—Stopes on Great and North lodes. One at the 265 fathom level worth £8 per fathom. One at the 252 fathom level worth £3 per fathom. One at the 240 fathom level worth £13 per fathom. One at the 230 fathom level worth £13 per fathom. One at the 180 fathom level worth £10 per fathom. One at the 140 fathom level worth £10 per fathom.—Middle lode. The 240 fathom level east of crosscut is worth £18 per fathom. The 240 fathom level east of crosscut is worth £10 per fathom. The 222 fathom level west of crosscut is worth £12 per fathom. The 212 fathom level west is worth £11 per fathom. The rise in the 200 fathom level is communicated with the 180 fathom level. This has opened some fairly good stopping ground.—Stopes on the middle lode. One at the 228 fathom level worth £13 per fathom. Two at the 212 fathom level worth £12 per fathom each. One at

the 200 fathom level worth £11 per fathom.—South lodes. The 130 fathom level east is worth £10 per fathom. The 140 fathom level east is worth £10 per fathom. The 70 fathom level west is worth £9 per fathom.—Stopes on the south lodes. One at the 180 fathom level worth £12 per fathom. One at the 160 fathom level worth £10 per fathom. One at the 150 fathom level worth £12 per fathom. One at the 90 fathom level worth £10 per fathom.—Tribute. We have 13 pitches working by 55 men, average tribute 2s. 1d. in the £1.

Supplementing the report, Captain Bishop said there were one or two points which showed an improvement. The crosscut near the engine shaft had been driven towards the north lode in the 300 fathom level, and was about 6 fathoms from the lode. The slow progress was due to the fact that they had been working with hand labour, and because they were not disposed to work with the water against them. With regard to the find in the eastern end on the North lode they had valued it at £70 per cubic fathom. (Applause.) He did not want them to think that he was unduly elated when he put the valuation down, but the produce from the level really came to 3 cwt. of tin to the ton. Unfortunately there was only about 9 fathoms to drive to the boundary, but it was a valuable piece of ground, and he only wished that it was longer. The important matter for them to discuss that morning was as to the Wheal Agar water. The men had all gone out on strike again that morning, and he told those who were working below the level that they could follow their own course; but those who were working above the level, and, therefore, out of danger, were to go back again to work, or he would not allow them to work on the mine again. During the strikes last year they were totally idle.

Mr. HEARD remarked that the water question was one of apparently great difficulty. A reference to arbitration seemed a reasonable course. He had been told that Wheal Agar committee had endeavoured to get an interview with the executive of East Pool, but had failed. It seemed to him that this interview should be granted, as they could do more with five minutes' conversation than with any amount of correspondence.

The CHAIRMAN stated that the committees certainly had a meeting, and certain schemes for amalgamation were brought forward; but at a meeting of the Wheal Agar adventurers the terms were not thought good enough. There had been a good many letters written from one side and the other, and so far as East Pool was concerned they made renewed propositions which were also rejected. As there was such divergence of opinion they thought a reference to arbitration would be the most practical way to come to a just decision, and a letter had been addressed to the purser of Wheal Agar repeating this proposition. Since then a private letter had been received by gentlemen connected with both mines, and he looked upon this as an indication that Wheal Agar committee might be willing to approach the matter again. The letter was from Mr. Hamilton, and was received by Mr. Lanyon, and it, at all events, breathed the spirit of amalgamation, if not a reference to arbitration. In the presence of the purser of Wheal Agar he would say that they really desired to see a stop put to the dispute, and he hoped he would impress upon his committee the sincere desire of East Pool to meet and talk over this matter. There was no doubt in the world that this water question was East Pool's stumbling-block at the present moment; they were quite aware that their pumping machinery was not sufficient to pump water from their own and Wheal Agar sett as well. If only Wheal Agar shareholders worked their sett there would be an end of the difficulty, but while Wheal Agar engine was stopped East Pool was in danger, and it remained to be seen how that difficulty could be got rid of. He hoped that instead of writing exasperating letters, and talking in an exasperating way they would act as business men and endeavour to find a solution to the difficulties. They had not only their pockets and their mine to look to, but they must think of the future and see if means could not be adopted to get more tin and a better price, which would enable them to get back some of the losses they had made. They were willing to meet the committee of Wheal Agar or to refer the matter to two arbitrators, who, if they could not agree, should call in an umpire, and he was quite certain that two or three gentlemen could be found who could decide the matter fairly, and come to a satisfactory arrangement. It was a matter that would brook no delay, as the water was rising every day, and the danger became daily more acute.

Mr. CORNELIUS BAWDEN said that from the remarks which had fallen from the Chairman it would appear that Wheal Agar was at fault, but this was not so. Mr. Hattersley, on the Monday before the meeting, came down to Cornwall and telegraphed to Mr. Branwell, asking him to arrange a meeting that afternoon, and the reply was "No, Friday afternoon." Another telegram was sent saying "Mr. Hattersley wishes to get back," and Mr. Branwell then said he would meet him at Truro on the following morning. Ultimately a meeting was arranged to take place at Penzance on the Thursday evening, and the result was that an offer was made to purchase Wheal Agar for £2500. The amount was not considered fair, and arbitration was proposed, but the East Pool gentlemen would not listen to it. Wheal Agar had always suggested arbitration, but it had been refused. On July 9th and 10th the engine was kept at work to give East Pool time, and when he wrote again on August 19, and repeated the offer to accept 600 shares in the united mines, £2500 cash, or submit the matter to arbitration, East Pool had never shown Wheal Agar what they wanted, and as no arrangement could be come to the engine was stopped. The gentleman who had the largest share in Wheal Agar had no interests in Cornwall, but had sunk more than £100,000, and ought to be treated differently. Mr. Bawden was about to trace the history of the difficulty during the past four or five years, when

Mr. LANYON said he hoped this would not be allowed. The CHAIRMAN said Mr. Bawden had entertained them with a long speech, and had said that East Pool had declined to negotiate, and Wheal Agar had always been anxious to submit the matter to arbitration. If East Pool had lagged behind they were now, at any rate, willing to receive arbitration.

Mr. BAWDEN asked why East Pool did not endeavour to bring about arbitration, or make an offer. The engine worked 10 or 12 weeks waiting for an offer for arbitration which did not come until the engine had been stopped 10 days.

At this point the CHAIRMAN read the offer made on June 12 as agreed upon at the conference (1) that the engine should be worked at the joint expense of the mines; (2) that the mines should be amalgamated, and Wheal Agar receive 600 shares; and (3) that East Pool should purchase the plant, &c., of Wheal Agar for £2500. These offers were rejected the other day by East Pool, and in addition arbitration was suggested, but Mr. Hattersley replied refusing, but stating they would be willing to meet the East Pool Committee.

Mr. BAWDEN complained that the whole of the reply had not been read and repeated that no offer was made until the engine was stopped.

Mr. ROGERS asked whether Mr. Bawden would consent to an arbitration on behalf of Wheal Agar.

Mr. BAWDEN replied that he was not the owner of the mine, and could not, therefore, give any undertaking on behalf of the shareholders.

Mr. LANYON said they did not appear to have made any progress. He was anxious to avoid a calamity and to settle the difficulty in a business-like way. It was only fair to Mr. Hattersley to say that in an interview with him he expressed his desire to do what was thoroughly honourable and fair in the

matter, and to avoid taking any advantage of anybody. He did not hesitate to say that since that interview it seemed that influence had been brought to bear upon Mr. Hattersley which had entirely altered his opinion as to the proposals made. (Hear, hear.) It was plain that arbitration would solve the difficulty. If they were to avoid a catastrophe the matter would have to be dealt with at once; it was of no use waiting for another ten days, and arbitration was the proper way to settle it. If Mr. Bawden had the power, let him now say would he consent to the matter going to arbitration.

Mr. BAWDEN: No; I have no power.

The CHAIRMAN: Are you wishful to have arbitration, and are you willing to help bring it about?

Mr. BAWDEN: Yes, and I should like to read letters here to prove I was willing from the commencement.

The CHAIRMAN: Will you promise to bring it before those you represent?

Mr. BAWDEN: If you will call a meeting of the two committees to do it.

Mr. HEARD moved:—

That the adventurers in East Pool at their general meeting regret exceedingly that no solution of the water question has yet been arrived at, and thoroughly endorse the resolution of the committee of the 9th August, and entirely approve of reference of the whole question to arbitration in the usual way.

Mr. BAIN seconded, and said he hoped Mr. Bawden would do his best to help the matter forward, otherwise they might see something which all would extremely regret.

The motion was then put, and carried.

Mr. W. G. GODDARD said that by encroaching Wheel Agar had taken away 10 feet which had been left for a boundary, and had thus allowed the water to have access to East Pool at a much lower depth than otherwise would have been the case. If Mr. Hattersley was in favour of arbitration before, it was curious that he had altered his mind. He maintained that there was far more reason now than formerly why Wheel Agar should consent to a settlement, as by encroaching they had made access to the water easier, and if any action was taken in the matter it would not be only the question of the amount of tin taken away, but the increased pumping charges and additional danger due to this encroachment.

In the course of further discussion Captain HAMBLY said there was no danger of the water coming in before the end of another week.

Ultimately, Mr. MILFORD suggested, as the only method of avoiding the danger, that East Pool should work the engine for a time.

Mr. ROGERS opposed this view.

The CHAIRMAN moved that the engine should be set to work at once, and that East Pool bear the expense for a month. This would give time for the Wheel Agar committee to come to a settlement.

Mr. LANYON seconded, and the motion was carried.

At the conclusion of the meeting the CHAIRMAN announced that Mr. Goddard, on behalf of the Tehidy estate, had agreed to forego the dues for the past quarter. (Applause.)

The meeting terminated with a vote of thanks to the Chairman.

ANGLO-GERMAN EXPLORATION COMPANY OF WESTERN AUSTRALIA, LIMITED.

The statutory meeting of the shareholders of the Anglo-German Exploration Company of Western Australia (Limited) took place yesterday, at Winchester House, Old Broad-street, Mr. W. F. ORRIS (the Chairman of the company) presiding.

The SECRETARY (Mr. E. Fairweather) read the notice calling the meeting.

The CHAIRMAN said: Gentlemen—As you are doubtless aware, the meeting to-day is a purely formal statutory one, and is held in compliance with the requirements of the Joint-Stock Companies Acts, but it gives the directors an opportunity of affording some information which will be interesting and acceptable to the shareholders. This company was registered on May 1, 1895, with a capital of £100,000. It is gratifying to be able to state that there is a free market in these shares, both here and in Germany (10s. paid), at about 300 per cent. premium on the amount paid up on the shares. Since I have been in the room a co-director of mine, who is a member of the Stock Exchange, tells me that the premium is 400 per cent., but I was anxious to be well within the mark. Your directors were anxious to obtain the services of the best mining engineer obtainable to go out to Western Australia on behalf of this company, and on the advice of Mr. Spiegel, our director in Berlin, and Mr. Strange, we approached Dr. Albano Brand, professor of geology and metallurgy in Berlin, and consulting engineer to some of the most important mines in Transylvania, and author of several standard works on mining and the treatment of ores. We have been fortunate in securing his services, and he sailed from Naples on the 18th inst. on board the *s.s. Orontes*, accompanied by Mr. Schoppelt, a first-class miner and engineer, and late manager of a mine at Transylvania, as his assistant. I should tell you that these two gentlemen have been associated together for some long time, and the directors consequently thought it was very desirable to secure Mr. Schoppelt's services. We expect these gentlemen will arrive in Perth about the second week in September. Dr. Brand, previous to his departure, obtained the permission of the directors to order an improved pattern of ball mill for trial crushing of ore, and also to order furnaces, retorts, tanks, chemicals, and all the implements necessary for establishing a complete laboratory for carrying out assays and tests as to best method of extracting the highest percentage of gold from any given ore. As you are probably aware, this company works in conjunction with the West Australian Venture Syndicate (Limited), the West Australian Mines Development Syndicate (Limited), and the Anglo-French Exploration Company of Western Australia (Limited), on reciprocal terms; and this arrangement has resulted very much to the advantage of all concerned, as unitedly these companies have a thoroughly reliable staff of practical men on the gold fields, in which we have the greatest confidence, co-operating together for the welfare of the united companies. We have Mr. Macklin as solicitor, who has had considerable and varied experience in Western Australian legal matters, who investigates the titles of any properties we propose to purchase. We have Mr. George Seymour, of the well-known firm of Bainbridge, Mr. Seymour and Co., on whose reports we rely, and by whose advice we are largely guided. We also have Mr. Furman, who is a most energetic and capable mining engineer and prospector, and who, Mr. Seymour reports, has rendered him most valuable help. Besides these gentlemen we have the Hon. M. Hume Black, late Minister of Land for Queensland, and Dr. Albano Brand, whose name carries great weight all over Germany, and arrangements are pending by which the directors hope to secure other important representatives on the fields. The value of the arrangement referred to has been proved in a very practical manner during the past week, when the first issue was made in which this company is interested—namely, the Golden Cement Claims (Limited). This property was acquired by the Venture Syndicate, and the interest taken in it by this company

will result very largely to its benefit. Indeed, the directors fully anticipate being able to declare a dividend at the rate of 100 per cent. per annum for the four months ending August 31, on the amount paid up on the shares, which I think you will agree is an exceptionally favourable result for the very short period the company has been in existence. I must not pass over the very valuable assistance which has been rendered to us by our Berlin director, Mr. E. Spiegel, and fully recognise the interest taken in our company by our German shareholders, who alone sent in this week applications for about twice the entire issued capital of the Golden Cement Claims (Limited) and to whom the directors will no doubt give a liberal allotment. The Golden Cement Claims, as you are probably aware, was subscribed several times over, and the shares now stand at a substantial premium. The value of the co-operation on the part of our German shareholders will be a great source of strength to us in the various issues we shall be making from time to time. Now having informed you of what your directors have done in the past, it may be interesting to you to learn the prospects we can hold out to the shareholders for the future, and without going into details of all the properties acquired, in which this company is interested I am glad to be in a position to state that we have been fortunate enough to secure properties which are at present being developed and which will eventually be issued, and we hope meet with an equal success to our first issue, and out of which the shareholders of this company may look for considerable profits. It may interest you to have some information concerning the Cement properties in which this company has been fortunate enough to secure an interest—and those of you who saw the Golden Cement Claims prospectus will know that the property sold to that company for £150,000, and known as the MacManus Leases, is estimated by Mr. Seymour to contain about 12 acres of the cement formation. By a recent cable we learn that as the result of the capable and energetic action of the officers of these four companies, further blocks of a similar deposit adjoining the MacManus Leases have been acquired, amounting in all to an area of no less than 300 acres or thereabouts of this cement formation, from which you will be able to form some idea of the possibilities the future may have in store for these companies. In addition, we have interest in other valuable properties located on the various fields, including claims at Cue, Bardoc, Hannan's, I.O.U., and Menzies. With regard to the property at Hannan's I may mention that it is reported by our representatives to be on the line of the Great Boulder Reef, and that a company has just been registered under the title of the Great Boulder Main Reef (Limited), with a capital of £120,000, to take over this property, all the necessary capital being already practically assured. I hope that the statement that I have been able to make to the shareholders to-day, will give them every satisfaction, and considering that [this company has only been in existence for a period of four months, to be able to obtain a premium of 300 per cent. on the capital invested, and to have earned a dividend at the rate of 100 per cent. on the amount paid up in so short a time, will, I hope, convince the shareholders that the board have spared no effort in looking after the interests of shareholders. (Applause.) If any shareholder wishes to ask any question I shall be glad to answer it. Perhaps I should further add, with regard to the Great Boulder property to which I have just referred, that this company has a quarter interest in that property.

Mr. BISMARCK: What interest has the Anglo-German Exploration Company in the various properties? Is it a fourth interest?

The CHAIRMAN: That is the arrangement we are working under at present. The properties the Anglo-German Company has the right of participating in will be acquired by the West Australian Venture Syndicate, and, under the arrangement they refer to, the Anglo-German are participating to the extent of one-fourth. I would like the shareholders to understand that this arrangement is distinctly a reciprocal one, and that the Venture Syndicate will also participate to a corresponding extent in any properties which the Anglo-German may subsequently acquire.

Mr. RICKARD: I think we should feel at the first impulse, in having such a wonderful account as that which we have now heard, that the enthusiastic thanks of the meeting are due to the Chairman and the board. (Applause.) I consider it is one of the most remarkable statements which I have ever heard on the part of a young company. Particularly with regard to this wonderful golden cement, it is something to "stagger one." If, as I suppose, we have good grounds for believing the statements which have been put forward by the engineers should prove to be correct—and I certainly, for myself, have great faith in them the value of the cement will—turn out to be something that will eclipse even the Mount Morgan. I say, if these statements are correct, an acre of that material—taking 5000 yards to the acre—would be very little short of 100,000 tons, which, calculated at even the half or the quarter of the average of the assays which have been reported, would make such a frightful figure that I would be afraid almost to state it. But there it is. The material, it seems, has not to be got at by expensive and dilatory mining work; it is at the surface, and there seems to be no excuse even for anyone making a mistake in the estimate of the value of the material. I think there is no doubt about it, that the shareholders of this company, and of the sister company, have very good grounds for congratulating themselves on the wonderful start which they have made, and I believe it augurs a very fine history indeed for this enterprise. (Applause.)

Mr. H. COLLINS: I have great pleasure in seconding this vote of thanks. It is a very pleasant thing to me personally, for I am not only a shareholder in this company, but also in four allied companies. (Applause.)

The resolution was then put and carried by acclamation.

The CHAIRMAN: With regard to Mr. Rickard's statements as to the value of this property, as the shareholders will have seen in the prospectus of the Golden Cement claims, although the ore assays 18 ounces to the ton, the directors of that company have thought it prudent—and I entirely agree with them—to base their calculations on the extremely modest and conservative estimate of 1 ounce to the ton. Even at that calculation, the returns are, I might almost say, phenomenal, and the public clearly realise this fact by the huge subscription that we have received. Many of the applications are traceable to professional mining engineers, and other men, who are peculiarly competent to form a correct estimate of the value of property of this description. (Applause.)

The proceedings then terminated.

EXPLOSION AT THE CARNEGIE STEEL WORKS.—An accident, attended by loss of life, has occurred at the Carnegie Steel Company's works at Braddock, Pennsylvania, U.S.A. One of the furnaces exploded, with the result that nine men lost their lives, and 16 others were injured, five fatally. The explosion was caused by the act of one of the workmen, who dumped a barrow into the ball furnace, but then forgot to raise it. The effect of this was to clog the furnace, and the gas was thus prevented from escaping. As the men who had to remove the material were leaning over the furnace the explosion occurred, and they were at once overcome by the escaping gases.

THE

WEST AUSTRALIAN TRUST, LIMITED,

Will make the following issue:—

THE NORTH WHITE FEATHER CONSOLIDATED GOLD MINES (LIMITED),

White Feather District

(96 ACRES).

CAPITAL, £225,000,

Divided into 90,000 Preference Shares of £1 each, of which 55,000 will be set aside for Working Capital, and 135,000 ordinary shares of £1 each.

The above Company will be Advertised

WEDNESDAY, SEPTEMBER 4th.

Prospectuses

will be ready on Tuesday, and will be obtainable of the Broker,

ALFRED J. BENJAMIN,
1, Austin Friars, E.C.,

And at the Offices of the Company,

54, Old Broad Street, E.C.

All of the cash required having been guaranteed, the Directors will proceed to allotment on or before

FRIDAY, SEPTEMBER 6th.

FIRST REPORT OF THE DIRECTORS OF THE BRITISH GOLD FIELDS, LIMITED.

For the period April, 1894, to June 30, 1895.

Presented at the ANNUAL GENERAL MEETING, held at the Offices of the Company,
13, POULTRY, LONDON, E.C., on THURSDAY, 29th AUGUST, 1895.**Mines: Dolgelly, North Wales.**

THE directors have much pleasure in presenting to the shareholders their first report, and a balance-sheet and profit and loss account, covering the period from the formation of the company in April, 1894, to June 30, 1895. Owing to the entangled position of the estate, and the necessity of obtaining the sanction of the Court of Chancery to the terms of purchase, the work involved in obtaining the property was heavy and protracted, but the directors are satisfied that the company is now in possession of a good and valid title to all the properties.

The property of the company consists of two freehold estates in the county of Merioneth: Caecyrach, about 171 acres in extent, with a farmhouse, and Tyddingwladys, about 315 acres, with a substantial stone-built residence, cottages, and other buildings. There are leases, having about 30 years to run, of the Gwynfynydd estate, about 500 acres, at a rental of £300 a year, and Cwmhesian, 450 acres, at £150 a year. The company also possesses Crown mining leases of Llanfachreth, 200 acres; Llanfachreth Penrhos, 233 acres; Dolfwynog, 293 acres; Bryntirion and Abereden, 457 acres; and about 4500 acres in the county of Wicklow. The Crown has also granted 13 take-notes to the directors in Merioneth extending over 2760 acres. The total area in the hands of the company is 9884 acres. The principal mine and the mill are situated upon the Gwynfynydd leasehold estate. Immediately on acquiring possession the directors took active steps to develop the property, which is in a state of neglect and disorder, owing to disuse. Work was commenced by pumping out the old mine, in which the directors had been led to believe there was payable rock in sight when the previous proprietors were compelled to relinquish work. The mine was cleared and some prospecting work done, but without adequate result.

NEW ADIT LEVEL.—Prospecting work was, therefore, started in the abandoned workings in the new adit level. This was attended with gratifying success, and by the beginning of August sufficient ground was opened up to warrant the running of the battery. In this new adit level the sinking of a main shaft has been commenced with encouraging prospects.

MINE WORK.—The underground operations have consisted in driving and crosscutting 2400 feet, sinking main shaft 42 feet below adit level, and stoping 18,244 tons of rock, of which 12,354 tons of ore were sent to the mill, and 5890 tons were waste. The mine plans are presented with this report.

DEVELOPMENT.—There are now 47,000 tons of ore in sight.

WATER SERVICE.—Simultaneously with the development of the mine, the directors took prompt steps to run the mill with water instead of steam power. The principal part of the pipes necessary for this, of the estimated value of about £2500, had been acquired with the property, and the work was completed at an additional cost not exceeding £550.

The water supply from the Cain river was turned through the pipes on July 5, 1894.

MILL.—The quantity of quartz crushed during the 11 months ending June 30 last, was 12,354 tons. The 40 stamp battery is now in good order, and is capable of treating at least twice that quantity.

MACHINERY.—A sorting floor has been erected close to the mouth of the mine, new and improved tip wagons have been purchased, and the machinery and plant otherwise improved. All is in good working order. The machinery and plant are not of the most modern type, and the working is not unattended with difficulty, as it is not easy in the United Kingdom to obtain thoroughly qualified men to operate gold mining and reducing machinery.

RIVER MAWDDACH PURIFICATION.—Representations were made to the directors, by the Board of Conservators and residents in the locality of the mine, that during the whole period, since the erection and working of the mill, the fishing in the Mawddach had been seriously interfered with by the discharge of tailings direct into the river, and that no attempt whatever had been made by previous owners to deal with the matter. The directors anxiously considered the courteous representation made to them, and after examining many schemes, they adopted a plan, which is on the eve of completion, and they hope it may be attended with success. The dam has been constructed so that it may be brought into use, should it hereafter become advantageous to deal separately with the tailings. This work will, at any rate, evidence to their neighbours that the directors are anxious to do everything in their power, consistent with maintaining the great industry in their hands, to abate the inconvenience which gold mining on a large scale must necessarily impose on the sport of the neighbourhood.

REVENUE, WORKING EXPENDITURE, AND PROFITS.—The following table shows, month by month, from August, 1894, the working expenditure and revenue as classified under the various headings. The summary gives the net profit of 19s. 5.63d. per ton calculated on the basis of the tonnage milled.

STATISTICS OF MONTHLY WORKING EXPENDITURE AND REVENUE.

For the period of April, 1894, to 30th June, 1895.

WORKING EXPENDITURE.

1894 to 1895.	Tonnage Milled.	Mining Expenses.		Transport Expenses.		Milling Expenses.		General Charges.		Total Working Expenses.	
		Cost.	Cost per ton.	Cost.	Cost per ton.	Cost.	Cost per ton.	Cost.	Cost per ton.	Cost.	Cost per ton.
April to July	...	£ 984 12 7	11 7.13	...	...	£ 44 11 10	2 0.01	£1,101 13 11	1 8.77	£ 2,086 6 6	3 3.90
August	444	474 11 9	21 4.53	67 7 6	3 0.42	44 11 10	2 0.01	265 7 0	11 11.43	851 18 1	28 4.39
September	736	435 12 8	11 10.05	68 14 9	1 10.41	129 7 3	3 6.18	265 7 0	7 2.52	899 1 8	24 5.17
October	946	527 2 6	11 1.73	77 11 6	1 7.68	130 10 3	2 9.11	265 7 0	5 7.31	1,000 11 3	21 1.83
November	1,556	584 0 1	7 6.07	135 17 4	1 8.90	118 10 9	1 6.28	265 7 0	3 4.93	1,103 15 2	14 2.18
December	1,401	652 2 0	9 3.71	155 10 0	2 2.64	99 1 8	1 4.96	265 7 0	3 9.45	1,172 0 1	16 8.76
January	1,040	818 18 4	15 8.97	134 1 4	2 6.94	87 4 3	1 8.12	265 7 0	5 1.23	1,305 10 11	25 1.26
February	1,604	480 13 8	5 11.91	107 8 0	1 4.07	186 4 8	2 3.86	265 7 0	3 3.70	1,039 13 4	12 11.54
March	1,639	565 11 3	6 10.70	126 5 11	1 6.49	117 15 10	1 5.25	265 7 0	3 2.84	1,075 0 0	13 1.39
April	1,268	567 13 6	8 11.45	127 5 9	2 0.09	120 19 10	1 10.90	265 7 0	4 2.23	1,081 6 1	17 0.17
May	696	680 1 9	19 6.50	48 11 1	1 4.74	180 0 10	4 3.64	265 7 0	7 7.50	1,144 0 8	32 10.38
June	1,023	592 19 9	11 7.05	85 19 3	1 8.16	226 5 7	4 5.06	265 7 0	5 2.22	1,170 11 7	22 10.40
Totals	12,354	£7,363 19 10	11 11.07	£1,134 12 5	1 10.04	£1,410 12 2	2 3.40	£4,020 10 11	6 5.47	£13,929 15 4	22 5.97
Averages	...	...	...	...	...	...	...	...	...	...	...

REVENUE.

1894 to 1895.	Gold Won.		Mill.		Profit.	Loss.	Percentage of Profit.	Percentage of Loss.
	Total Ounces.	Yield per ton.	Value of Yield.	Value of Yield per ton.				
April to July	...	...	...	...	...	£2,086 6 6	...	...
August	229,275	516	£778 19 0	£1 15 1.05	...	72 19 1	...	3 5.43
September	545,725	741	1,777 12 7	2 8 3.66	£878 10 11	...	£1 3 10.48	...
October	423,825	448	1,430 13 0	1 10 2.95	430 1 9	...	0 9 1.10	...
November	847,100	544	2,934 1 6	1 17 8.55	1,830 6 4	...	1 3 6.31	...
December	1,019,335	728	3,569 12 9	2 10 11.50	2,397 12 8	...	1 14 2.72	...
January	155,175	149	529 6 11	10 2.15	...	776 4 0	...	14 11.12
February	916,275	571	3,260 18 10	2 0 7.92	2,221 5 6	...	1 7 8.36	...
March	613,225	374	2,105 17 4	1 5 8.27	1,030 17 4	...	0 12 6.90	...
April	1,856,650	1,464	6,042 0 9	4 15 3.60	4,960 14 8	...	3 18 2.94	...
May	632,800	909	2,144 9 3	3 1 7.47	1,000 8 7	...	1 8 9	...
June	476,425	466	1,381 13 1	1 7 0.0	211 1 6	...	0 4 1.49	...
Totals	7,715,800	624	£25,955 5 0	£2 1 10.37	£14,960 19 3	£2,935 9 7	£1 4 2.64	...
Averages	...	...	...	...	2,935 9 7	...	0 4 9.01	4 9.01
					£12,025 9 8	...	£0 19 5.63	...

INCOME.

Mining	...	Average cost per ton milled s.11 10.07	£7,363 19 10
Transport	...	1 10.04	1,134 12 5
Milling	...	2 3.40	1,410 12 2
General Charges (including depreciation)	...	6 5.47	4,020 10 11
Total	...	...	£13,929 15 4
Balance, Net Profit	...	...	12,025 9 8
			£25,955 5 0

EXPENDITURE.

Mill Produce—	7,715,800 ounces yield per ton 624, value per ton	£2 1s. 10.37d.	£25,955 5 0
			£25,955 5 0

AUDITED ACCOUNT.—The profit and loss account, as certified by the auditors, shows a net profit of £12,025 9s. 8.1d., after writing off £338 5s., one-third of the preliminary expenses, and £408 8s. 11d. for depreciation. There is a balance of £3799 10s. 3d. in cash and with the company's bankers. As is shown in the above table the net profit has been realised after charging the account, with expenditure, for nearly 15 months, although crushing operations have been carried on for only 11 months.

TAILINGS.—The whole of the profit has been derived solely from crushing; no plan of treating tailings has at present been adopted. The directors regret to have to call attention to the charge of £900, the estimated cost of litigation during the year. The chief item under this head is due to the arbitrary action of the lessor, who, accompanied by his solicitor, but without notice to the directors, paid a surprise visit, in November last, to the mine, and having been technically and in error refused permission to inspect the workings, immediately took possession of the property. The prosperity of the mine being manifestly assured, the directors took immediate steps to repulse this attempt to wrest from the company its valuable estate, and moved the Court to eject the lessor. The action was successful; the lessor, on the second day of the trial, retired from the case, the company undertaking to pay the taxed costs. To this arrangement the directors assented with less reluctance, because it settled all outstanding points at issue between the lessor and the company.

The shareholders will judge for themselves with what object the lessor paid his surprise visit with his solicitor, when it is stated that at no time, either before or since the alleged forfeiture, has the lessor concerned himself to attend at the mine to inspect the workings. The second case of litigation was with Mr. Pritchard Morgan, who was temporarily engaged as secretary. When the directors dispensed with his services he refused to deliver up the company's books. Application was forthwith made to the Court to obtain possession of them. The verdict was in the company's favour, with costs against Mr. Morgan. Mr. Morgan is still in litigation with the company in re the Abereden Estate, with the freehold of which he seeks to burden the company. The directors are advised that Mr. Morgan has no case. The mining rights of this Estate are in the undisputed possession of the company.

SHARE CAPITAL.—The share capital of the company stands at the nominal sum of £100.

The value of the bullion produced amounts to £25,955 5s., and the net profit to £12,025 9s. 8d.

The total cost of the freehold properties, the leases, mine, mill, machinery, and plant, &c., with the preliminary expenses and subsequent capital expenditure on improvements, amounts to the small sum of only £23,606 17s. 3d. The gross liability of the company on the entire estate amounts only to £21,877 8s. 6d. After deducting cash in hand and amounts due by debtors, together amounting to £10,296 0s. 11d., there is a net liability for the whole property of only £11,581 7s. 7d. The £2500 mortgage on the Caecyrach Estate has been paid and the property placed in trust for the company. In present circumstances the directors propose to continue this policy of using the resources at their command to pay off the charges on the property, and consolidate the position of the company.

Arrangements have been made to carry out extensive prospecting operations on the ground covered by the take-notes granted by the Crown. The directors cannot conclude their report without placing on record their appreciation of the unvarying courtesy and consideration of the late Chancellor of the Exchequer and the Commissioner of Woods and Forests and his staff, in the important negotiations which have taken place.

(Signed) HALLEY STEWART.
E. H. DUNNING.
THOMAS BAYLEY.

The SUBSCRIPTION LIST will OPEN on MONDAY and will be CLOSED for LONDON and the COUNTRY on WEDNESDAY, the 4th September, and for the Continent on the following day, at 4 o'clock.

THE FAUVEL GOLD RECOVERY CO., Limited.

INCORPORATED UNDER THE COMPANIES ACTS, 1862 TO 1890.

CAPITAL £150,000, in 150,000 Shares of £1 each. 10,000 Shares are being held in reserve.

ISSUE of 140,000 SHARES. Of which 110,000 Shares will be allotted to the Vendor, as fully-paid, in part payment for the Contracts, Process, and Inventions hereinafter mentioned. The REMAINING 30,000 SHARES are NOW OFFERED for SUBSCRIPTION, payable as follows:—2s. 6d. per Share on application; 7s. 6d. per Share on Allotment; and the balance in calls of not more than 5s. per Share, as and when required, at intervals of not less than three months.

DIRECTORS.

JOHN S. PRINCE, Esq. (Chairman of The Barrett Gold Mining Company (Limited, &c.), Chairman, 8, Cornwall Mansions, Cornwall Gardens, S.W.
Honourable ALEXANDER F. H. CAMPBELL, J.P. (Director of The McCulloch Coolgardie Gold Mines, Limited), 34, Draycott Place, S.W.
P. GERALD SANFORD, Esq., Metallurgical Engineer, F.I.C., F.C.S., &c. (late Metallurgical Department Royal School of Mines, and the Royal Mint), The Laboratory, 20, Colliam Street, E.C.
JOSEPH TAYLOR, Esq. (Director of the late Austral-Africa Exploration Company, Limited), 25, Montague Place, W.C.

Managing Director.

*CHARLES J. FAUVEL, Esq., M.E., Assoc. M. Inst. C.E., &c., Member of the Inst. of Mining and Metallurgy, Broad Street House, E.C., and The Laboratory, Cranford, Middlesex.
* Will join the Board after Allotment.

Metallurgical Engineer.

CHRISTOPHER J. CLARKE, Esq., Assoc. M. Inst. C.E., 15, George Street, Mansion House, E.C.

Consulting Engineers.

BAINBRIDGE, SEYMOUR and CO., St. Helen's Place, E.C.

Bankers.

THE LONDON JOINT STOCK BANK (Limited), Old Broad Street Branch, 55, Old Broad Street, E.C.

Auditors.

CURTIS THOMSON, LUCEY, HICKS and CO., 15, George Street, Mansion House, E.C.

Solicitors.

VENNING, SONS, and CO., Gresham House, Old Broad Street, E.C.

Secretary and Offices.

Mr. JOHN TUCKER, Broad-street House, New Broad Street, E.C.

FAUVEL GOLD RECOVERY COMPANY (LIMITED).

ABRIDGED PROSPECTUS.

This Company has been formed for the purpose of acquiring patent or other rights in valuable metallurgical processes and inventions, and to work, license, or sell to individuals, syndicates or companies the rights so acquired.

The first process proposed to be acquired is that known as "Fauvel's Gold Recovery Process," for the treatment of refractory gold-bearing ore, for which patent rights have already been granted in South Africa, the United States of America, the Australian Colonies, and other gold producing countries of the world.

Fauvel's process is remarkably simple and economical. The ore having been previously pulverised to the required fineness, is freed from deleterious ingredients by automatic roasting in such a manner that it largely provides its own fuel, and the gold having been thus liberated, is conveyed without any handling direct into an amalgamator, where the precious metal is readily arrested. The cost of this effective and easy treatment is estimated, with coal at 30s. per ton, to be covered by 2s. 6d. per ton, whilst under more favourable conditions it might be as low as 1s. But even if the cost be estimated at 5s. for the treatment of a ton of a really refractory ore, there is practically no limit to the extent to which this process may be adopted.

The opinion formed of the value of Fauvel's process may be seen in the report by C. G. Warford Lock, Esq., the author of "Practical Gold Mining," co-author of "Gold, its Occurrence and Extraction," and also from the report by P. Gerald Sanford, Esq., Metallurgical Engineer, F.I.C., F.C.S., &c.

The opinion of Mr. J. Fletcher Moulton, Q.C., has been obtained as to the validity of the patent.

Without considering the numerous properties which, from the refractory nature of their ore, cannot now be profitably worked, but which the Fauvel process may again bring into active operation, and assuming that amongst the existing mines all over the world, only five hundred separate

plants are erected within a reasonable period, each paying a royalty of even one per cent. to the parent company for the licence to use the process, it will be seen that considerable profits may accrue to this Company.

FAUVEL GOLD RECOVERY COMPANY (LIMITED).

As an illustration of the manner in which profits may accrue to this undertaking, let us assume that only 25 furnaces are erected in the early stages of the business, each with a capacity of 50 tons per day, and working 300 days in the year, then taking the average value of the ore at 12 dwts., and the yield in gold as equal to £100 daily from each plant, or about £30,000 per annum, a royalty of 1 per cent. only would yield £300 a year for each plant. The 25 furnaces would therefore yield £7500, and in like manner 250 would represent £75,000 per annum, with a proportionate increase according to the additional number of furnaces erected, and irrespective of the other sources of profit mentioned above.

The vendor has accepted an offer by cable for all his patent rights in the United States of America, amounting to the sum of £100,000 in cash and shares, together with a royalty of 1 per cent. (about 1d. per pennyweight) on the gold recovered. This Company will have the benefit of the vendor's interest in this contract, and also of contracts entered into for the sale of the patent right for the Transvaal, the Dominion of Canada and Portugal, particulars of which are set out in the full prospectus, copies of which can be obtained on application at the Company's office.

The purchase price has been fixed by the vendor at the sum of £125,000, payable as to £110,000 in fully-paid shares of £1 each, as to £5000 in cash (as consideration for the patent), and his expenditure in relation thereto, including the formation of this Company up to allotment, and the balance of £10,000 in cash or fully-paid shares, or both, at the option of the directors.

Application should be sent in accompanied by a deposit of 2s. 6d. per share.

Copies of the agreements and reports and of the Memorandum and Articles of Association of the Company can be inspected at the offices of the solicitors.

Dated 30th August, 1895.

THE REPORT ON PUBLIC COMPANIES.

(Continued from Page 1026).

IN dealing with the Memorandum of Association the Committee relate a somewhat amusing instance of the manner in which, according to the Registrar of Joint Stock Companies, a coach-and-four was driven through that part of the Companies Act which requires the capital of a Limited Company to be of "a certain fixed amount," and which necessitates that there shall be at least seven members of a registered company holding at least one share each. This provision was in January, 1891, thus complied with. A company was registered with a nominal capital of £10,000, divided into 9,800,000 shares of 1d. each. There were the required number of shareholders—viz., seven, each holder of one share, and the total subscribed capital of this promising company was no less than 11d. This somewhat *reductio ad absurdum* of the wiles of the promoter helps as a strong illustration to point the shortcomings of the present system. Here you have the seven subscribers duly registered, but you are still in the dark as to the real capitalist at the back of the concern, or the name of the real promoter, or of any single person who intends to reap advantage through the company's registration, or who takes any real interest in the concern, for the well recognised practice in promoting is that the Memorandum of Association shall be signed by seven "dummies." It is clear that it is no easy thing to provide against this difficulty; a provision that no company shall be registered with shares below a certain stated amount, as is the case in France and Germany, interferes with the investment of the poor man, and is no safe-guard against a subscription by "dummies," for the promoter will always be equal to find persons willing to make the necessary subscription to the Memorandum, and it would be impossible to test the solvency of such subscribers. If the money had to be paid down, the promoter or person who desired to remain unknown could not be prevented from finding the necessary money. The trader on the verge of bankruptcy would still purport to sell his business to a company, with his clerks and others as his dummy subscribers. By means of cross entries in the books he purports to receive payment, in cash, for his business, taken at an inflated valuation, or he subscribes for shares and sets off this valuation against the calls. By taking debentures which constitute a floating charge on the assets for the balance of the purchase-money he obtains priority over the creditors of the business, who, in such cases, are practically his own creditors.

In a recent case, to which attention was drawn in these columns, that of "Broderip v. Salomon," the Court of Appeal held that where it is proved that the formation of the company was a mere device to defraud creditors the law will go behind the legal machinery of the Acts, and make the persons who are the beneficial owners of the business liable to indemnify the company against its debts. This judgment the Committee has appended to its report, and have recommended in their draft Bill that proof that a company is formed to defeat creditors shall in future be ground for winding-up a company. They would give the Court, when winding up a company in such a case, or if it should appear that the certificate of incorporation was obtained by fraud, or that the shares had not been allotted as required by the Act, power to declare that any one or more of the members are liable for the debts of the company. In such cases it is proposed that the Attorney-General may petition. The advantage of this is that the public may be protected in cases where it is not in the interest of any share-

holder to move. The Committee do not propose any general enactment rendering liable, without limit, members of the mystic seven who help to compose a company, but who hold no substantial interest, nor do they suggest that companies should be forced to recognise or take cognisance of persons who are trustees for others. To take notice of trusts affecting shares would be a burden upon directors and managers almost intolerable. Neither the report nor the draft Bill, therefore, contain a proposal for any alteration (which is to be compulsory) of the existing Memorandum of Association, the Committee being of opinion that the public must look elsewhere for protection such as will secure to them the good faith of the undertaking.

Passing, therefore, to the important safeguard to which the public are accustomed to look, and on which at times they are said to lay too much stress, namely, the directors, it is suggested that an intended director should sign the Memorandum of Association for his qualification shares. A clause is proposed to this effect, but it is not possible to make it compulsory. The difficulty of securing his signature at the moment the Memorandum has been finally settled by counsel or other person responsible for its terms, would at times be an insuperable difficulty. However, no director shall be appointed by the Articles of Association, or be named in the prospectus, unless before registration of the Articles or publication of the prospectus he has filed with the Registrar a consent in writing to act as director, and has signed a contract filed with the Registrar to take and pay for his qualification shares. A proviso is added, excluding the operation of this provision from companies which do not issue an invitation to the public to subscribe for shares, and from prospectuses issued by or on behalf of a company after the expiration of one year from the formation of the company. The Committee seem happy in supplying loopholes, as we have already remarked. Here again is a clear invitation to the promoter to elude the provisions of the proposed Act by forming companies on spec, and letting them lie dormant for a time before issuing the prospectus. By this means, invitations issued to a private circle, no matter how large, to subscribe for shares, would escape these restrictive provisions, as well as the proposed penalty of £5 a day on directors who failed to obtain their qualification shares within one month of appointment, which it is suggested by the succeeding section should be imposed as a means of enforcing compliance with the Act.

Having taken the opinion of men of business, the Committee consider it undesirable that a liability on shares should be reserved for call only in the case of winding-up. It is clear that such shares are often avoided, especially by those who hold shares as part of a trust estate.

The arguments and proposals as to double registration are reviewed and discussed. Inasmuch as such a scheme is likely to entail complication, delay, and expense in the formation of companies, and calculated to interfere with the facility for bringing enterprises for the investment of capital to this country, the Committee think, on the whole, that it would lead to blackmailing. To leave shareholders at their first meeting to determine whether they should drop or go on with a business or to settle the terms of a provisional contract would be so unfair that an honest vendor of a business or promoter of a new enterprise might well fear to take the risk of having his project "blown upon," and so returned to his hands depreciated in its commercial value. Instead of a suggestion of such a character, it is proposed that the hitherto useless first meeting, now held within four months of formation, should be held within one month, and should become of real use; the subscriber should then have the opportunity of enquiry into the facts and of withdrawing from a contract if there are legal grounds for rescission. For this purpose it is proposed, in order to give this meeting vitality and

the life which it is the common stock at present of Chairmen of the statutory meeting to deplore the want, that the directors of the company shall at least seven days before the meeting forward to each member a statement of (a) the number of shares allotted, and the consideration for which they have been allotted; (b) the total amount of cash received in respect of shares; (c) an abstract of receipts and payments, and an account or estimate of the preliminary expenses; (d) the names, addresses, and occupations of directors, auditors, manager, and secretary; (e) the dates, parties, and short purport of every contract made with the promoter, vendor, or contractor with the company, and the amount of payment in respect of any contract not disclosed in the prospectus, and the particulars of any proposed modification; (f) the position and prospects of the company; and (g) that the directors have no reason to question the good faith of the undertaking or the statements in the prospectus, and that they are satisfied with the position of the company, and consider the subscribed capital is sufficient, and if they cannot so report, why not. This report, so far as it relates to shares and receipts and payments, is to be certified by the auditors. The report should be filed with the Registrar. A list of members should be accessible to members at the meeting, and the meeting is to be at liberty to discuss any matter relating to the formation of the company, and may without previous notice by extraordinary resolution appoint a committee of enquiry. It cannot be said if this proposal becomes law that the statutory meeting in future will be devoid of interest, or will be flat, stale, or unprofitable.

Allotment on insufficient capital, "the cause which has probably occasioned more loss to the public than any other in connection with joint stock companies," does not pass, as may be imagined, without due attention. Unless the minimum subscription upon which the company can go to allotment is named both in the Memorandum and prospectus, the whole share capital must be allotted. If it is named, then that amount must be first received by the company. The directors will be personally liable for contravention of the provisions, and any applicant may set aside such allotment wrongly made within one month after the statutory meeting.

(To be continued).

EDINBURGH.

Messrs. THOMAS MILLER and SONS, Stock and Share Brokers, 69, Hanover-street, Edinburgh, report as follows under date of August 29:—A large amount of business has been done during the past week, but owing to the small supply of debenture, guaranteed, and preference stocks have not participated in the general activity. In Scottish railways Caledonian Deferred has advanced from 51 9-16 to 52 1/2, North British from 45 1/2 to 46 1/2. Glasgow and South-Western, Great North of Scotland, and Highland are unchanged. Canadian and Americans have been lively at a large advance. Insurance shares quiet. Edinburgh Life have improved from 52 1/2 to 53 1/2. English and Scottish Law Life from 11 1/2 to 11 3/4. Life Association from 42 to 42 1/2. Standard Life from 65 to 65 1/2. Commercial Bank shares have improved from 70 to 70 1/2. Bank of Scotland have declined from 34 1/2 to 34 1/4, National from 340 to 339 1/2. British South Africa shares have improved from 7 to 7 1/2-16. Coal and iron shares firm. Steels have advanced from 66 1/2 to 76 1/2. Cowdenbeath Coal 10s. up at 17. Marbellas from 50s. to 54 1/2-6 1/2. John Watsons from 11 1/2 to 12 1-16. Aris has up from 61s. to 63 1/2-9 1/2. Parnochester have advanced from 10 to 10 1/2. Youngs declined from 58 1/2 to 58 1/4. Distillers 1s. 3d. higher at 18 1/2-16. New Zealand and Australian Land 60s. higher at 91. John Barry Outlets 1s. 3d. higher at 9 1/2-16. Coats 18s. higher at 25 1/2. A considerable business has also been done in unquoted mines and land companies.

The SUBSCRIPTION LIST will OPEN on MONDAY, the 2nd September, and CLOSE for 1896 at 4 p.m. on WEDNESDAY, the 4th of September, 1895, and the following morning for the COUNTRY.

Mr. ROBERT WILLIAMS, in his Report to the Zambesia Exploring Company (Limited), of the 1st of December, 1894, states that Mr. Hammond, in speaking of the Dickens Reef, says:—
"That as we had crushed 1000 tons of ore from the Mine and produced 18 dwts. per ton, he considered our test crushing was much more reliable than any sampling he could make of the Mine, and that all he wished to satisfy himself about was as to whether the Reef was or was not permanent."
As to this Mr. Hammond further states:—"I found the Reef at the Dickens to be a true fissure reef; such being the case I think there is no question as to the persistency or permanency of the Reef in depth." See page 63, Director's Report of the British South Africa Company, Second Edition, 18th January, 1895.

THE LIVINGSTONE AFRICAN EXPLORATION COMPANY, LIMITED.

SHARE CAPITAL ... £250,000,
DIVIDED INTO 250,000 SHARES OF £1 EACH.

Of which the Vendors take 66,666 Shares in part payment of the Purchase money.

183,334 Shares are Now Offered for Subscription.

(Of Which £100,000 Will be Available for the Provision of Working Capital).

Payable 2s. 6d. on Application; 2s. 6d. on Allotment; 5s. on the 2nd November; 5s. on the 2nd January, 1896; 5s. on the 2nd March, 1896.

DIRECTORS.

LEWIS PETER FORD, Esq., Shortlands House, Shortlands, Kent (Chairman), formerly acting as Her Majesty's Attorney General, Transvaal.
H. SEYON-KARR, Esq., M.P., J.P., 12, Lower Sloane Street, London, S.W. (Chairman of the Zambesia Exploring Company, Limited).
ARTHUR H. HALLER, Esq., Shipowner, 61, Mark Lane, London, E.C., and Hall.
JOSEPH WILLIAM GREIG, Esq., 51, Broadhurst Gardens, London, N.W. (Director of North Metropolitan Tramways Company, London).
MAX SCHOEPF, Esq. (from Teke on the Zambesi), 77, Bishopsgate Street Within, E.C., Managing Director in South Africa.

Messrs. BROWN, JANSON & CO., 22, Abchurch Lane, E.C.

SOLICITORS.

Messrs. ASHURST, MORRIS, CRISP & CO., 17, Throgmorton Avenue, E.C.

BROKERS.

Messrs. READ & BRISTOCK, 5, Austin Friars, and Stock Exchange, London.
Messrs. PATERNON, NEWLANDS & CO., 23, Benfield Street, and Stock Exchange, Glasgow.

CONSULTING ENGINEERS.

Messrs. BEWICK, MOREING AND CO., Broad Street House, E.C., and Salisbury, South Africa.

ENGINEERS AND AGENTS IN AFRICA.

Messrs. CHAS. J. ALFORD & CO., Salisbury, Mashonaland; Umtali, Manicaland.

AUDITORS.

Messrs. MONKHOUSE, GODDARD AND CO., 23 and 25, St. Swithin's Lane, E.C.

SECRETARY AND OFFICES (pro tem).

JAMES MONCRIEFF WILSON, Esq., 15 and 16, George Street, St. Swithin's Lane, E.C.

PROSPECTUS.

This Company has been formed for the purpose of—
First.—A valuable contract or concession for locating, working, and developing 2000 gold mining claims (equal to about 3000 acres), granted by the British South Africa Company to the North Charterland Exploration Company (Limited). This concession gives the right to locate the above Mining Claims anywhere within the grant of 10,000 square miles held by the North Charterland Exploration Company (Limited). This grant is situated between the British Protectorate of Nyasaland on the East, and the River Loangwa on the West, and bounded on the South by a portion of the Anglo-Portuguese frontier, and on the North by the British South Africa Company's territory, lying north of the Zambesi river, over which sphere the British South Africa Company has undertaken direct administration in virtue of an agreement entered into between Her Majesty's Government and the British South Africa Company on the 24th November, 1894.
Secondly.—A land grant from the said North Charterland Exploration Company (Limited) of 250 square miles, or 160,000 acres, to be located (with the approval of that company) within the same area.
Thirdly.—A block of ten mining claims on the eastern extension of the well known Dickens Reef, situated about 11 miles from Victoria, Mashonaland, upon which some development work has been done. These claims adjoin those of the Zambesia Exploring Company (Limited), which were most favourably reported on by Mr. Hays Hammond and Mr. Robert Williams, of London, Johannesburg, and Bulawayo, and quoted in the last Annual Report of the British South Africa Company (see page 18 of first edition, and also pages 50 and 52 second edition). Particular attention is drawn to the extract from Mr. Williams' report on the Dickens Reef, at the head of this prospectus.
The African Pioneer Company, the Vendors of the Dickens Reef claims, inform the Directors that a shaft has been sunk to comply with the regulations of the Chartered Company; that the reef is on the main road, and only two days' journey by ox wagon from the railway terminus at Ohimololo; that machinery can be easily conveyed to the claims; that there is ample wood, water, and labour obtainable; and that three parcels of ore taken from the reef were assayed by Mr. Claudet, Assayer to the Bank of England, and gave the following results:—

	GOLD.	SILVER.
Parcel B.....	Ozs. dwts. grs.	Ozs. dwts. grs.
" C.....	1 3 0	0 2 0
" D.....	1 19 0	0 5 0
" E.....	2 2 0	0 9 9

Fourthly.—A further right to peg out an additional fifty mining claims within the sphere of the operations of the British South Africa Company.

In the first place, the Directors propose to send out an expedition under Mr. Max Schoepf (the Managing Director in South Africa) who has resided for many years in South East Africa, and who, being thoroughly familiar with the country, will guide the expedition in the selection of the gold mining claims and of land for settlements, towns, &c. In Mr. Max Schoepf's opinion, this Company has obtained rights over one of the most valuable parts of the territory under the jurisdiction of either the British South Africa Company or the North Charterland Exploration Company, as the concession covers a part of the ancient and valuable Missale Gold Fields.

In this district water and timber are abundant, native labour is largely available, and the improved facilities for carriage by the Zambesi and Shire rivers will considerably lighten the working expenses, both as the Company's mining operations, and the development of its Land Grants (see map and memorandum). The regions to the north of the Zambesi were for a long period of time reported to contain mineral wealth of great value, and Dr. Livingstone and other travellers record, not only the existence within these regions of auriferous areas of large extent and richness, but also of coal and other minerals and valuable commercial products. Commissioner Johnston, in his official report on British Central Africa, dated March 31, 1894, says, as regards minerals:—

"Gold is known to be present in the mountainous region along our south-west border, and also in Jumbes Country of Marimba, on the South-West Coast of Lake Nyasa; it is said to be also present in the Loangwa Valley."

Mr. JOHN HAYS HAMMOND, in his report to the Directors of the British South Africa Company, dated November 5th, 1894, says, speaking of the Gold Belts:—

"Included in these mining belts are numerous ancient workings. At the date of my examinations, August-September, 1894, about 1800 miles of quartz reefs have been pegged out, of which it is estimated 380 miles actually cover ancient workings. That an enormous amount of gold has been obtained from these workings in the past is, however, unquestionable; Millions of Pounds Sterling worth of gold has undoubtedly been derived from these sources."

"To summarise I would say that I consider the prospects of the country encouraging, the veins being undoubtedly true fissure veins, and the mineralisation being, as attested by the ancient workings, very extensive, there are, I think, substantial grounds to predict the opening up of shoals of ore, from which an important mining industry will ultimately be developed."

In the second place it is intended to develop the Pioneer Block on the Dickens Reef, and for that purpose to forward the necessary Machinery and Mining Gear.
And Thirdly, the sale of other portions of the Company's claims and innumerable Land Grants and Business concessions to Sub-Companies will, the Directors believe, secure handsome profits.

As an evidence of the success of South African Companies, the following may be named as showing the value of shares in such Companies:—

	£	s.	d.
The London and South African Exploration Company (Limited), 10s. paid, present value about ...	13	10	0
South African Gold Trust (Limited) £1 shares, present value about ...	9	17	8
The Rhodesia Exploring Company £1 shares are quoted at about ...	17	15	0
Zambesia Exploring Company £1 shares are quoted at about ...	5	0	0
Rhodesia Concession (Limited) ...	1	7	8

The Livingstone Syndicate, Limited, who are the promoters of the Company, have fixed the price to be paid for the properties acquired by the Company at £150,000, payable as to £25,000 in cash, £25,000 in fully paid shares, and the balance in cash or shares or partly in cash and partly in shares at the option of the directors, thus leaving £100,000 of the capital available for the provision of working capital, and they will out of the purchase money provide £50,000 cash and shares for the North Charterland Exploration Company, and the African Pioneer Company.

The following contracts have been entered into:—(1) A contract dated 5th July, 1895, between the North Charterland Exploration Company, Limited, and the Livingstone Syndicate, Limited; (2) a contract dated 19th July, 1895, between the African Pioneer Company, Limited, and the Livingstone Syndicate, Limited; (3) a contract dated 5th July, 1895, between the Livingstone

Syndicate, Limited, of the one part, and Thomas Williams as Trustee for this Company of the other part, being the contract for sale to this Company, and a contract between Mr. Max Schoepf and this Company. Other contracts and arrangements have been entered into by the Livingstone Syndicate, Limited, in relation to the formation of this Company, and the underwriting of a portion of its Capital. The Company is not a party to any of such contracts or arrangements, but in order to avoid any question being raised as to such contracts or arrangements falling within the provisions of Section 35 of the Companies Act, 1867, applications for shares will only be accepted upon the basis that applicants have agreed with the Company as Trustees for the Directors, and other persons interested, to waive the insertion in this Prospectus of the dates of, and the names of parties to, such contracts and arrangements, or any further compliance with the same section than above set forth. The above-mentioned contracts, and the Memorandum and Articles of Association, can be inspected by applicants for shares at the offices of the Solicitors of the Company.

Application will be made in due course for a quotation on the London Stock Exchange.

Applications for shares should be made on the accompanying form, and forwarded to the Company's Bankers, together with the amount payable on application. Where no allotment is made, the sum so deposited will be returned in full, and if the number of shares allotted be less than that applied for, the surplus will be credited in reduction of the payment on allotment, and any balance will be returned.

Prospectuses and Forms of Application may be obtained from the Bankers and Solicitors, and at the Offices of the Company.

COMPANY FINANCE.

Reports, Balance Sheets, Dividends, &c., of Mining and other Companies.

Bushman's Gold Mines of Western Australia (Limited).

The following circular has been sent to the shareholders:—
The following is a copy of the report by Mr. W. H. Matthews, manager of Bayley's Reward Claim Gold Mining Company, Coolgardie, Western Australia, upon three of the leases owned by the company:—"I have carefully inspected gold mining leases Nos. 703, 1332, and 726, known as the Bushman, Lulwarth, and Birthday, comprising a total area of 48 acres, situated at the south-west end of the 90 Mile Salt Lake, West Australia. General features. The general features of the property are of an auriferous character, the surface in the low-lying ground is covered with quartz rubble, intermixed with ironstone, which has disintegrated from the lode outcrops, this being the chief gold bearing matrix throughout the colony.—Lode outcrops: Owing to the depth of alluvial on the greater portion of the property, it is impossible at this stage to determine the number of lodes that will eventually be discovered. From the work already done these appear to be numerous, and many of them can at the present time be traced through the full length of the property, and doubtless there will be many others exposed as the property is developed.—Work: The work done comprises shafts, cross trenches, and trial pits sunk to various depths, and in almost every instance exposing lode matter containing gold more or less of a promising nature.—Block No. 726: This is the most southern block, and has been prospectively by one shaft and a number of cross trenches.—No. 1 shaft: No. 1 shaft has been sunk to a depth of 45 feet. At the 25 feet level drives have been driven along the course of the lode east and west for a distance of 50 feet in each direction: the lode formation averages 4 feet wide, with 3 feet of solid stone, composed of quartz impregnated with iron of a very favourable character. At the bottom of the 45 feet level (which is the water-line) the lode is much stronger, being 5 feet wide; the walls are better defined, giving every indication of continuing and improving in depth. I carefully examined the stone raised in the dumps from the sinking and driving; in all about 100 tons. Gold could be freely seen. From this I took a large bulk sample, which gave a yield equal to slightly over 2 ounces 12 dwts. of gold per ton. This I regard as very satisfactory indeed.—Main reef, No. 2 lode: About 100 yards south of No. 1 shaft a trial pit has been opened on what is known as the No. 2 lode, bearing north and south. At the present depth of 5 feet the lode is fully 4 feet wide. A bulk sample from this gave equal to 15 ounces 13 dwts. per ton.—No. 3 lode: Still further south a third opening has disclosed lode matter 18 inches wide, composed of quartz and ironstone. A bulk sample from this gave a return equal to a little over 4 ounces 11 dwts. of gold per ton.—No. 1 shaft: At the north point of the outcrop a shaft has been sunk 18 feet to the water level. The lode formation is 6 feet wide, and the stone apparently makes a rapid dip north; the shaft passing through the lode about 10 feet from the surface. Bulk samples taken from the stone raised and on the ore dump yielded equal to 2 ounces 13 dwts. per ton.—No. 2 shaft: No. 2 shaft is sunk 100 yards south of No. 1 to the depth of 34 feet—the water level. The lode at the top consists of two veins, each about 1½ inches wide; at the bottom these make into one solid body fully 3 feet 6 inches wide, quartz strongly ironstained with well defined, clean, and unbroken walls, giving every indication of permanency. A bulk sample taken from the shaft bottom extending the full width of the lode, gave a return of 4 ounces 18 dwts. per ton.—Water: For the purposes of a water supply, which will be necessary for the treatment of large quantities of stone, I consider this property most favourably situated. All the shafts are now at the water line, and being in the vicinity of the 90 Mile lake, I feel assured that, with a little further sinking, all that is necessary will be obtained.—Block No. 1332: The work done on this block has been very limited, consisting of one shaft sunk to a depth of 33 feet. The lode formation at the surface consists of three small veins, but towards the bottom making more defined and solid, about 2 feet wide and a very promising material. There are other lode outcrops which can be clearly traced through the full length of the property, ranging in size from 1 foot to 4 feet wide. Up to the present little or nothing has been done to test the value of them, but from general appearances they may be equally as valuable as the lodes opened in the previous lease.—Block No. 703: At about 5 chains from the northern boundary the lode outcrop shows 6 feet wide, strong and well-defined, and can be clearly traced for 184 yards in length.—Eastern lode: Towards the east boundary there is the eastern lode, running about parallel with the eastern lode. This has been opened out by shallow trenches for 14 chains in length, exposing lode material the full distance, averaging about 4 feet in width, and composed chiefly of quartz with thin bands of friable intrusive rock. Probably this lode will average 3 feet of solid rock. From this a bulk sample was taken at 10 different places along the whole length of the openings, which yielded a very satisfactory return, equal to 3 ounces 5 dwts. of gold per ton.—General: In my inspection of this property I have much pleasure in stating that from the present developments and from samples taken from various parts of the property (each giving good results) I consider it a good, sound, legitimate mining investment. The lodes and the veins throughout the property are apparently numerous, and all more or less gold-bearing, many of them, from the samples tried, being very good indeed. This, with the assurance of an abundant water supply, should, when the mine is properly developed and the necessary machinery procured, make it one of the most valuable mines in the district."

—The directors of the LONDON AND JOHANNESBURG SYNDICATE (LIMITED) have declared an interim dividend of 2s. per share (being at the rate of 120 per cent. per annum) for the month ending August 31, payable on the 15th proximo.

Bendigo Consols (Limited).

We note the registration of the Bendigo Consols (Limited), with a capital of £120,000, in shares of 10s. each, to acquire and develop the well-known Tarnagulla Gold Mine leases, comprising an area of 95 acres, situated about 25 miles from Bendigo, the colony of Victoria, Australia. The property is held under lease from the Crown, and contains the renowned Poverty reef from a comparatively small portion of which, it is stated, gold to the amount of £1,340,000 was obtained by the late owners. This reef varies in breadth from 8 feet on the surface to 23½ feet at a depth of 320 feet, the average yield of gold being from 5 to 7 ounces per ton. The mine has intact the greater part of the machinery, and it is estimated that an expenditure of £3000 will put it in a thoroughly payable condition. The facilities for working are first-class, wood and water being in plentiful supply. We understand that satisfactory arrangements are being made for a working capital of £10,000.

Western Australian Bank.

The report of the Western Australian Bank for the half-year ending June 30, states that the net profit, after providing for bad and doubtful debts, for rebate on discounted bills current, for interest on deposits, and for all expenses of management, came to £9974, to which have to be added £340, and the balance brought forward, £29,901, making a total of £33,215. From this the directors have resolved to pay a dividend of 17s. 6d. per share, equivalent to 17½ per cent. per annum, and absorbing £7000, leaving £26,215 to go forward. The reserve fund now stands at £100,000, and the reserved profits amount to £26,215. A branch has been opened at Menzies, and arrangements have been made to open another at Esperance. The name of the branch at White Feather has been altered to Kanowna, in accordance with postal regulations. The old bank premises in St. George's-terrace being no longer required for banking purposes, have been sold at a satisfactory price. New premises are being erected at Bunbury and Northam, and steps are being taken to erect premises at York and Cue, where additional accommodation is urgently needed.

Waldon's Find Gold Mines (Limited).

The favourable estimate which was formed of this enterprise on its introduction to the market some little time ago has been further enhanced by the discovery of a third existing reef, assaying 5 ounces to the ton, running parallel to the two other highly auriferous lodes already known to permeate this property. The shares have accordingly been in active demand during the week, and as development progresses the mine is expected to open up more favourably. The 10s. shares are now quoted from 6s. 6d. to 7s. 6d.

George Goch Amalgamated Gold Mining Company.

A special general meeting of shareholders will be held at Johannesburg, on Tuesday, October 1, 1895, to consider, and if deemed advisable, to pass a special resolution authorising an increase of the capital by the issue of 190,000 shares, for the purpose of acquiring the property and assets of the Metropolitan Gold Mining Company (Limited) on the following terms:—132,000 shares to be issued to the shareholders in the Metropolitan Gold Mining Company (Limited), 33,000 shares to be taken up, at 60s. each, by Messrs. Albu and Goetz, 25,000 reserve shares, total 190,000. Proxy forms may be had on application from the London agents, and when signed should be returned to them, at latest by Friday, September 6.

North Queensland Mines Agency.

The issue of 25,000 new ordinary shares at a premium of £1 per share have been offered to the shareholders of the company, and, having been over-subscribed, letters of allotment and regret have been sent out.

—The NEW HERIOT GOLD MINING COMPANY (LIMITED) have declared a dividend of 15 per cent., payable to all shareholders registered August 30.

—The offices of the NEW BULTFOUNTAIN MINING COMPANY (LIMITED) have been removed to 6, Drapers'-garden, E.C.

—According to a cablegram received from the head office of the NEW CLEWER ESTATE AND GOLD COMPANY it was resolved at the extraordinary general meeting of shareholders, held at Johannesburg, that the offer for the amalgamation of this company with the Lydenburg Mining Estates (Limited) be accepted. According to the terms of the agreement the New Clewer Estate and Gold Mining Company (Limited), in exchange for all its property and assets, will receive 50,000 shares in the capital of the Lydenburg Mining Estates (Limited).

—Holders of share warrants to bearer in the FERREIRA GOLD MINING COMPANY (LIMITED) are informed that they will receive payment of the dividend No. 9 (13s. per share) on presentation of coupon No. 2, either at the London office of the company, 130, Bishopsgate-street Within, E.C., or at the Credit Lyonnais, Paris. Coupons must be left four clear days for examination at either of the offices mentioned above, and may be presented any day between the hours of 11 and 2 (Saturdays excepted).

—At a meeting of the directors of the HAURAKI GOLD MINING COMPANY, held yesterday, it was resolved:—"That a dividend of 1s. per share free of income tax be, and it is hereby, declared payable to all shareholders on the register on the 6th day of September next. That the books of the company be closed from the 7th to the 14th day of September, both days inclusive."

—The directors of the REAL ESTATE CORPORATION OF SOUTH AFRICA (LIMITED) announce a second interim dividend of 2 per cent., less income tax, on account of the current year, payable on and after September 9 next.

—The prospectus of the CONSORT DEEP LEVEL GOLD MINES (LIMITED) will be issued early in September by the Mines Acquisition and Development Company (Limited), who are the vendors. The property is adjacent to that of the Consort Consolidated Company. A considerable sum of money has been spent on development, and it is stated that three reefs traverse the property—the Consort Main, the South reef, and the Pipes Consort reef.

—The secretary of the ISLE OF MAN MINING COMPANY (LIMITED) informs us that he has sold 100 tons of the company's ore at £8 5s. 6d. per ton.

—An official notice in connection with the BRILLIANT CENTRAL GOLD MINING COMPANY (LIMITED) states that a call of 3d. per share has been made, payable in Charters Towers on October 5, and unless the payment be made on or before October 31, the shares will be forfeited.

—The directors of the STANDARD BANK OF SOUTH AFRICA have declared a dividend of 10 per cent. per annum and a bonus of 6 per cent. per annum. This amount has only been exceeded once, viz.:—For the second half of 1881, when the dividend was 18 per cent.

—ANOTHER MAP OF WESTRALIA.—Another new map of the West Australian gold fields (including Coolgardie, East Coolgardie, Yilgarn, Dundas, Murchison, and Yalgoo districts), by Mr. Walter Bowdler, is now, we are informed, in the press. The map has been compiled from the latest authentic information direct from the Lands and Survey Department at Perth, and with the assistance of the Hon. Sir Malcolm Fraser. The size will be 120 inches by 40 inches.

NEW ISSUES.

THE MURCHISON DIAMOND AND GOLD MINES (LIMITED).

The formation of this company has for its object the acquisition and working of the diamondiferous deposits in the Bingara district of Murchison county, New South Wales. In extent the property consists of two blocks of 40 acres each, both of which were granted by the Mines Department of the Colony Government to Mr. J. E. Palmer. Among those gentlemen who are said to have expressed their high opinion of the value of the property, we may mention Sir Henry Parkes, ex-Premier of New South Wales; Mr. Corbett Lawson, Warden and Police Magistrate of Bingara; and Mr. Streeter, the well-known diamond merchant of London. Captain Rogers, who has reported on the property, owns a 40 acre lease in the district, which has been more highly developed than any area in the neighbourhood, and the results of working are said to be that "without any sorting whatever the washed dirt gives an average of 6½ carats per load." It is at present proposed to use Lockhart's patent gem-separating machines for extracting the gems, and it is expected that with a very moderate outlay, a plant sufficient to deal satisfactorily with 100 loads per day, will be at work some few weeks after the machinery arrives on the mine. Mr. Mercer, who is among those who have reported on the blocks, states "that seven loads taken from the surface that I washed, gave nine diamonds and 2½ dwts. of gold." Further on he says "the wash being of identical nature as that in the famous Monte Christo Mine, there is no reason why it should not be equally as rich." Mr. Henry Glenny believes "that the mine is highly diamondiferous," and Mr. W. H. Jordan, C.E. certifies that the blocks are situated "in the middle of the diamond-bearing district of New South Wales." Among the other stones which are reported to be found in the washed dirt we may mention jaspers, quartz, agate, sandstone discoloured by oxides, manganite, trimanite, conglomerate, quantities of small gems, rubies, garnets, sapphires, zircons, tourmaline, and topazes, also gold and platinum in sufficient quantities to contribute materially towards working expenses. We may, in conclusion, state that the capital of the company is £200,000 in 400,000 shares of 10s. each fully-paid.

THE MALLINA PROPRIETARY (LIMITED).

This company's property consists of two leases of 12 acres each, situated in the Pilbarra gold fields, near the lease of the Mallina Consols, whose title is familiar to the mind of mining circles in connection with some very successful and even brilliant crushings. One of the new company's claims is situated quite close to the 12 acre lease owned by the Mallina Consols (Limited), which is yielding stone giving as high as 70 ounces to the ton. The property, in fact, is situated among several of the highly successful gold fields, and should it yield results at all comparable with those of its neighbours, the shareholders will have every reason to be satisfied with their investments. The increased facilities for working which cannot fail to follow upon the Governmental provision of the port Bala Bala, and improved mail and telegraph services may be expected shortly to affect very advantageously all of the workings on the field. It may be mentioned that the capital of the company is £500,000, divided into shares of 5s. each, of which 80,000 shares are reserved for working capital. Mr. H. B. Taylor's report is worth quotation. He says:—"King Solomon Lease: Quartz leaders run through the entire length. Have put down another shaft, and have hit on four large leaders, the prospects from which are very good. Mr. Kerr is confident there is an enormous reef from which these leaders spring, and that it is a splendid claim. It improves every day, and is undoubtedly a first-class mine. Very good stone has been obtained, giving 2 ounces per ton.—Elena Lease: This reef adjoins the flat reef, from which 70 ounce stone has been taken. A shaft is down 25 feet, and the reef has been struck. It is 6 feet wide, carrying rough and fine gold, giving 4 ounces to the ton."

FAUVEL GOLD RECOVERY COMPANY (LIMITED).

This company has been formed with a capital of £150,000 in £1 shares, of which £30,000 are now offered for public subscription, for the purpose of "acquiring the British, foreign, and colonial patent or other rights in valuable metallurgical processes and inventions, and to provide all necessary reports and models, and all incidental expenses in connection with the same, and to work, license, or sell to individuals, syndicates, or companies the rights so acquired. The first process proposed to be acquired is that known as 'Fauvel's Gold Recovery Process,' for the treatment of refractory gold bearing ores, for which patent rights have already been granted in South Africa, the United States of America, the Australian colonies, and other gold-producing countries in the world." Mr. Warnford Lock says of the Fauvel process:—"A careful study will I think convince metallurgists that the scientific principles involved are thoroughly sound, and that the furnace provides in a practical manner for all reasonable conditions, and is able to accomplish the object for which it was designed." The benefits to be derived by the new company from the process are briefly summarised in the prospectus as follows:—" (1st) From this Company working the process on its own account. (2nd) From the sale of plant and licences to work the process. (3rd) From the formation of some other company or companies to purchase all or any of the rights possessed by this Company. (4th) From the sale of any or all of the foreign, or colonial rights. (5th) From royalties." It is estimated that 500 furnaces will be eventually in use in various parts of the world. The basis of the calculation is given as follows:—"It is assumed that the United States of America will require not less than 200 furnaces. The owners of one mine alone (The Great Homestake) have stated that they will probably require a plant capable of treating 1200 to 3000 tons of ore per day, or about 24 furnaces, and others would require 2, 4, 6, 8, or 10, to treat their daily output of ore, so that this figure may be considerably under-estimated." The purchase price has been fixed by the vendor at the sum of £125,000, payable as to £110,000 in fully-paid shares of £1 each, as to £15,000 in cash (as consideration for the patents, and his expenditure in relation thereto, including the formation of this company up to allotment), and the balance of £10,000 in cash or fully-paid shares, or both, at the option of the directors. In conclusion, it may be stated that the vendor has accepted an offer by cable for all his patent rights in the United States of America, amounting to the sum of £100,000 in cash and shares, together with a royalty of 1 percent. (about 4d. per dwt.) on the gold recovered. This company will have the benefit of the vendor's interest in this contract.

WOODSTOCK (TRANSVAAL) GOLD MINE.

Prospectuses of this company will be issued on Monday, and in the meantime a few particulars of the seat of its proposed operations may not be without interest to our readers. At the foot of the gold hill, where the mine is situated, there is said to be ample means of communication by road, river, and rail, for the carriage of the ores, while there is a full sufficiency of water

to supply the requisite motive power for the stamps. Ore of a grade no higher than the average of the Witwatersrand should, it is thought, here pay handsomely; but, judging from the reports, something very much higher than the average Rand yield may be confidently expected. The gold, it appears, is non-pyritous, and hence no chemical plant will be needed unless it should be found that the direct cyanide process can be applied with an increase in economy. The reef is spoken of as of great width—that is as compared with gold reefs in general, and those of the Witwatersrand in particular. The probable width of the reef is said to be 40 feet. According to a statement which has been made, in the Sheba Mine, which is comparatively near Woodstock, they are working a 90 feet reef; so that the belief in the existence of a 40 feet reef in the property we have now under consideration has at least this precedent to guard it from being thought to be unduly exaggerated. It is said "that the steeple formation giving rich prospects of rough nugget-gold was found to be 15 feet wide." The exploratory work and development which has hitherto been carried out in the property appear to be of a satisfactory character, and have led the promoters to state that "taking the mine as a whole, the Woodstock should rank very high in comparison with other Transvaal Mines."

THE LIVINGSTONE AFRICAN EXPLORATION COMPANY (LIMITED).

This company has been formed with a capital of £250,000, in £1 shares, of which 183,334 are offered for subscription (£100,000 of which will be reserved as working capital) for the purpose of acquiring a valuable contract or concession for locating, working and developing 2000 gold mining claims (equal to some 3000 acres) granted by the British South Africa Company to the North Charterland Exploration Company. This concession, as the prospectus states, gives the right to locate the above mining claims anywhere within the grant of 10,000 square miles held by the North Charterland Exploration Company. Secondly.—A land grant from the said North Charterland Exploration Company (Limited) of 250 square miles, or 160,000 acres, to be located (with the approval of that company) within the same area. Thirdly.—A block of 10 mining claims on the eastern extension of the well-known Dickens reef, situated about 11 miles from Victoria, Mashonaland, upon which some development work has been done. These claims adjoin those of the Zambesia Exploring Company (Limited), which were most favourably reported on by Mr. Hays Hammond and Mr. Robert Williams, of London, Johannesburg, and Bulawayo, and quoted in the last Annual Report of the British South Africa Company. Particular attention is drawn to the extract from Mr. Williams' report on the Dickens Reef, at the head of the prospectus. The company will also have a further right to peg out an additional 50 mining claims within the sphere of the operations of the Chartered Company. The directors intend to send out Mr. Max Schoep with a fully-equipped expedition to select gold mining claims, and lands for settlements and towns. Summarising his report to the British South Africa Company, Mr. John Hays Hammond says:—"I would say that I consider the prospects of the country encouraging, the veins being undoubtedly true fissure veins, and the mineralisation being, as attested by the ancient workings, very extensive, there are, I think substantial grounds to predict the opening up of shoots of ore, from which an important mining industry will ultimately be developed."

LOMATIE (LYDENBURG) EXPLORATION COMPANY (LIMITED).

This company has been formed with a capital of £150,000 in 150,000 shares of £1 each, of which £50,000 are now offered for public subscription, in order to provide working capital for the purpose of acquiring, exploring, and further developing a block of land, containing an area of 74,893 English acres, adjoining the proclaimed De Kaap gold fields in the Lydenburg district of the Transvaal. The directors state that from information in their possession they are satisfied (1) that gold-bearing reefs have been discovered and development work has already been done by trenches, shafts and crosscuts, to the extent of over 9000 feet; (2) that the farms are exceptionally well situated as to wood and water; (3) that there is sufficient water-power in the Lomatie river, which runs through the property all the year round, for stampmills of large capacity. With respect more especially to the operations intended to be pursued in the future, the directors state:—"These advantages, combined with cheap labour and proximity to the railway, should enable the company to work ore, even of a low grade, profitably. The area of the estate, being about 115 square miles, will permit of the re-sale of portions, from time to time as opportunity occurs, without interfering with the operations of the company. Vigorous prospecting operations will be at once commenced."

THE "GOLD KING" AMALGAMATOR.—A new appliance, of which a great deal is expected by its originators in the future, has been brought out by an enterprising mining engineer in the States. It is known as the "Gold King" amalgamator, and among the chief advantages which it is claimed will accrue from its operation are a greater economy in saving the miner from the costs of the cyanide process, and greater efficiency in extracting gold. Furthermore, it is said that ores which are not susceptible to treatment by the ordinary processes are quite amenable to treatment by the "Gold King" amalgamator. Several apparently crucial tests have been given to this new appliance, with results which, on the whole, would appear to be satisfactory. We shall wait for further particulars concerning its manner of working with great interest.

RUSSIAN COKE PRODUCTION.—The production of coke in Russia is increasing at a rapid rate. By the end of the present year there will be 500 Coppée or Bernard coke ovens at eight collieries in the Donetz district, and these independent of the 400 or 500 furnaces at the Hughes Steel Works, 180 at the Briansk Works, 152 at the Dnieproviensk Works, 42 at the Donetz Steel Works, and 40 in operation, and 40 in course of construction, at the Krivoi Rog Works.

RESIGNATION OF THE GOVERNOR OF WESTERN AUSTRALIA.

(THROUGH REUTER'S AGENCY.)

PERTH, AUGUST 26.

Sir W. C. F. Robinson has resigned the Governorship of Western Australia.

It was current gossip in the Lobby last (Tuesday) night that Baron Henry de Worms would be appointed Governor of Western Australia, in succession to Sir W. Robinson, whose resignation was yesterday announced. The reasons for that resignation are not hard to guess. Sir William Robinson, perhaps, thinks that directorships in the City are better than Governorships in Australia. When he was over here on a holiday a few months ago, he eulogised West Australia as a gold field whose richness and magnificence were beyond any doubt that might have been suggested by the disappearance of the "pocket" in the Londonderry Mine. Coming from the Governor of the colony these rosy views were a cause of great joy to a good many people in the City.—*St. James's Gazette.*

CORNWALL MINERALS RAILWAY.—The half-yearly general meeting of the Cornwall Minerals Railway Company was held on Thursday at 17, Victoria-street, Mr. George Chamberlain presiding.—The report stated that the gross receipts for the half-year were £21,187, being a decrease of £405, and as there was an increase of rather more than 1½ per cent. in the working expenses charged by the Great Western Company, the net receipts amounted to £2092, being a decrease of £259 compared with the previous corresponding period.—The Chairman, in moving the adoption of the report, spoke of the expenditure undertaken to provide additional shipping facilities at Fowey. The Lostwithiel and Fowey line was now completed, and it was to be officially inspected on Friday. He hoped it would be opened on September 2.—The motion was agreed to.

JAVALI.—The manager writes on June 25, as follows:—"We restarted work the latter part of last month. During those few days 44 tons of ore were broken from stopes No. 2 (western workings). Although the quartz is somewhat harder for extracting, yet the quality is a decided improvement on that from the old stopes.—San Pedro. Works produced 27 tons of rock. So soon as we have struck pay ground in the crosscut below I shall take the men from this point to start a rise to prepare for stopping. At present the end of the crosscut is in very hard ground and his progress is slow, even with the aid of dynamite.—Dolores. The output from here was 30 tons of ore. I am keeping on this work with a view of getting under the old Nispero workings on the south side, where I can, without danger to our main level, rifle any of the pillars and runs left by former workers.—Mill output. The mill, working an average of eight stamps, ran 13 days, crushing 225 tons of soft ore, which produced 72 ounces of gold. The yield from two arrastras was 8 ounces, and from 70 tons of tailings treated in April last 3½ ounces. Total, 83½ ounces of gold, the average value per ton being 7 dwts. 2 grains. The remittance is valued at £167; the cost for May at £148 18s. 6d.

LIMERICK.—Advice to hand on 27th inst. say: Mine looking exceedingly well. Pumps have been purchased in Adelaide, and crushing plant is at Fremantle; both will be at work very shortly. We have over 1500 tons on surface ready for treatment, averaging wherever tested over 3 ounces per ton. Leases have been transferred and we are working full-handed. Developments opening up splendidly.

FEDERATED INSTITUTION OF MINING ENGINEERS.—We have received particulars of the elaborate arrangements which have been made to suit the convenience of gentlemen travelling to Stoke-upon-Trent to be present at the meetings of the Federated Institution of Mining Engineers, to be held on September 18 and 19. Special trains at special fares will be run from several of the chief towns of England by the Midland Railway Company, and the scale upon which the preparations have been made clearly shows that the gathering is expected to be a large one. From the agenda paper, it appears that the proceedings will be of more than usual interest.

ASHBOURNE GOLD MINE (LIMITED).—Letters of allotment of shares have been posted.

SALE BY AUCTION.

*. Advertisements are inserted in this column at the rate of 8d. per line with a minimum charge of 4s.

THE CALLINGTON UNITED MINES. VERY VALUABLE MINE MACHINERY AND MATERIALS IN GREAT VARIETY FOR SALE.

J. G. SPEAR AND SON are favoured with instructions to SELL, on the Premises, on THURSDAY and FRIDAY, September 5th and 6th, 1895, commencing each day at Twelve o'clock (sharp at noon), the whole of the

Valuable Machinery and Effects.

now on the Holmbush, Kelly Bray, and Redmoor Mines, in the parishes of Callington and Stokeclimsland, Cornwall.

The Machinery will be found a very valuable lot. It is adjoining good roads; is about 1 mile from Callington, and 9 from Launceston and Tavistock, and the East Cornwall Mineral Railway runs through one of the Mines.

The Property may be viewed the day previous, and on the mornings of sale. And further particulars may be obtained of the Auctioneers, or at Messrs. PETER and MARRACK, Solicitors, Callington.

A deposit of 25 per cent. will be required at the close of each day's sale for accounts amounting to £20 and upwards, and approved acceptances at three months for the balance will be taken. But on accounts less in amount than £20 the full amount will be required, with the auction fee as per conditions.

A Luncheon will be provided each day at 10.30. Tickets 2s. each, returnable to purchasers of £5 and upwards.

A conveyance will meet the 9.30 train Liskeard, 7.5 Saltash, 8.3 Tavistock, at the usual fare.

COMPANIES AND LEGAL ANNOUNCEMENTS.

*. Advertisements are inserted in this column at the rate of 8d. per line with a minimum charge of 7s. 6d.

THE MALMANI GOLD SYNDICATE (LIMITED).

COMPANIES ACTS, 1862, SECTION 51.

IT having been resolved that the CAPITAL of the above COMPANY be INCREASED from £12,500 to £25,000 by the issue of 100,000 NEW SHARES of 2s. 6d. each, amounting together to £12,500, to be issued on such terms and conditions, at such time or times, and in such amounts as the Company's Directors may determine:—

NOTICE IS HEREBY GIVEN:—

That the Directors, in accordance with the above Resolution, offer to the Shareholders the privilege of subscribing, at the price of 5s. per share for one new share of the new issue, for every three original shares held by them, whether registered shares or Share Warrants to bearer.

On and after the 5th day of September, holders of Share Warrants to bearer can obtain Forms of Application from the offices of the Company, or from the Credit Lyonnais, 19, Boulevard des Italiens (Hall du Fond, Guichet F.), Paris, and must remit to the registered Offices of the Company the sum of 5s. per share for each new share to which they are entitled.

They must also deliver up Coupon No. 1 of their Share Warrants to the Credit Lyonnais, against the receipt of the Bank, or at the Offices of the Company for verification and cancellation.

Share Certificates, when ready, will be delivered by the Credit Lyonnais in Paris, or by the Secretary of the Company in London, in exchange for the receipts given for the Coupons.

Applications will be received up to and including Tuesday, 17th September, on which day the list will finally close.

Only registered shares will be issued; if desired they can subsequently be exchanged for Share Warrants to bearer on payment of the legal stamp duties and fee.

Registered shareholders will be communicated with by circular to their respective addresses.

By order of the board,

H. B. GREENWOOD, Secretary.

13 and 14, Abchurch Lane, London, E.C., 29th August, 1895.

C. PASS & SON (Limited), BRISTOL,
 LEAD ASHES, SULPHATE OF LEAD, LEAD SLAGS,
 ANTIMONIAL LEAD, COPPER MATTE, TIN ASHES, &c.
 and DROSS or ORES containing
 TIN, COPPER, LEAD, AND ANTIMONY.

HENRY WIGGIN & CO. (Limited),
 NICKEL AND COBALT REFINERS,
 MAKERS OF BEST RED LEAD FOR FLINT GLASS
 MANUFACTURERS,
 BIRMINGHAM.

J. A. JONES, Mining Engineer,
 (M.Inst.M.M., M.N.Eng.Inst.M.M.E.)
 GIJON (ASTURIAS), SPAIN.

LAMBERT'S WHARFAGE CO.,
 PRINCE OF WALES DOCK, SWANSEA.
 Ores, Matres, Regulus, and Bars received and prepared for market.
 Copper, Lead, Tin, Spelter, and Pig Iron Received, Weighed, and
 Sampled, and Warrants issued against same.
 N.B.—Warrants are on Accepted List of London Metal Exchange.
 Regular lines of steamers from America, Europe, &c.
 Consign goods to Lambert's Cranes, Prince of Wales Dock, Swansea

FOR RELIABLE INFORMATION AS TO
COLORADO MINING AND OTHER
INVESTMENTS,
 WRITE TO
THOMAS TONGE, DENVER, COLORADO.
 CHARGES MODERATE. CABLE: TONGE, DENVER.

THE BUTE WORKS SUPPLY COMPANY
 133, BUTE DOCK, CARDIFF.
 Telephone: No. 45 (Post Office and National).
 Telegrams: Gething, Cardiff.

RAILWAY WAGONS (New and Second-hand) for Cash,
 Redemption Purchase, or Simple Hire. Full particulars on applica-
 tion.

EARTH WAGONS.—75 side and end tipping, 30-inch gauge,
 new frame, and new tops, STEEL wheels and STEEL axles, £5
 each, f.o.t. Cardiff.

RAILS.—Bridge, Flange, Double Head, and Bull Head, with or
 without fastenings.

SLEEPERS.—Wood and Steel for all gauges.

LOCOMOTIVES.—Six wheels coupled, by Manning, Wardle
 and Co., 12 inches by 17 inches, now at Cardiff; also six wheels
 coupled, by Avonside Engine Company, 14 inches by 20 inches, now
 near Cardiff; also six wheels coupled, by Sharp, Stewart, and Co.,
 17 inches by 24 inches, now near Cardiff; all recently thoroughly
 overhauled, and ready for instant work; cheap for cash, or three
 years' redemption purchase.

SILVER SLOCAN'S FAMOUS MINES.

A Group of Developed Mines on the Mother Lode
 FOR SALE.

Price in sight, in ore merely a matter of mathematical compu-
 tation.

A rare opportunity of securing a fine Silver Mine at a safe con-
 servative price.

TIME PROPITIOUS.

Present owners the original locators. Mine is now too extensive
 or their Management.

Two Railroads rushing for the Camp.

REPRESENTATIONS FULLY GUARANTEED.

Cable Address: RYAN, Kaslo, B.C.

See Office of this JOURNAL, full Particulars.

J. C. RYAN, Kaslo, B.C.

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Saves Fine Gold and Floured Mercury, the GOLD KING
 AMALGAMATOR. Rigidly proved. Increases value

MINING PROPERTIES! DIVIDENDS!!

Circulars at Head Mining Offices, London; or from WILLIAMSON BROS. (Sole
 Agents outside United States); Telephone Building, San Francisco, California;
 and Moray Place, Dunedin, New Zealand.

Plates being taken out of American Batteries to make way for Gold King.

SHIPPING.

UNION LINE.

FOR SOUTH AFRICAN GOLD FIELDS.—
 WEEKLY SERVICE.—CAPE OF GOOD
 HOPE, NATAL, and EAST AFRICAN ROYAL
 MAIL STEAMERS.—The UNION STEAMSHIP
 COMPANY'S ROYAL MAIL and INTER-
 MEDIATE STEAMERS will sail as follows for
 SOUTH and EAST AFRICA, calling at MADEIRA,
 and TENERIFE.

Steamers.	Antwerp.	Rotterdam.	Hamburg.	Southampton.
*Goth (twinscrew)	—	Aug. 27	Aug. 31	Sept. 7
†Moor	—	—	—	Sept. 14
*Arab	Sept. 10	—	Sept. 14	Sept. 21
†Mexican	—	—	—	Sept. 28

† Calling at Madeira. * Via Tenerife.

Free railway tickets from London and Plymouth to Southampton.
 Cheap Tickets are issued for Passengers' Friends.
 The Union Line Express is despatched from Waterloo Station (Main Line
 Platform) every Saturday.

RETURN TICKETS ISSUED.

Apply to the UNION STEAMSHIP COMPANY (Limited), Canute
 Road, Southampton; 14, Cockspur Street, London, S.W.; and South
 African House, 94 to 96, Bishopsgate Street Within, London, E.C.

CASTLE LINE.—CAPE & NATAL MAILS.

WEEKLY SERVICE FOR THE GOLD
 FIELDS OF SOUTH AFRICA.—The
 CASTLE COMPANY'S STEAMERS leave
 LONDON (East India Dock Basin, Blackwall)
 every FRIDAY, and sail from SOUTHAMPTON
 every SATURDAY.

Steamers.	London.	Southampton.
Norham Castle (via Madeira)	Sept. 8	Sept. 7
Warwick Castle (via Canaries and St. Helena)	Sept. 13	Sept. 14
Tantallon Castle (via Madeira)	Sept. 20	Sept. 21
Drummond Castle (via Canaries)	Sept. 27	Sept. 28

† Also for Madagascar and Mauritius.

Return tickets to all Ports.

Free Tickets by Castle Express from Waterloo to Southampton.
 Apply to DONALD CURRIE and Co., 8, Fenchurch Street,
 London, E.C.
 West End Agency, THOS. COOK AND SON, 13, Cockspur Street.

The Mining Journal, RAILWAY AND COMMERCIAL GAZETTE:

An Illustrated Record of Mining, Metallurgical, Railway,
 Financial, Industrial, and Engineering Progress.

ESTABLISHED IN 1835.

THE MINING JOURNAL, RAILWAY AND COMMERCIAL
 GAZETTE, published every SATURDAY MORNING, price
 SIXPENCE, is recognised throughout the World as being the oldest,
 most influential, and most widely circulated Journal devoted to the
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ALL OVER THE WORLD.

Amongst Mine Owners, Capitalists, Investors, Mining, Metallurgical,
 Railway and Mechanical Engineers, Railway Administrators, Manu-
 facturers, &c., &c.

THE MINING JOURNAL, RAILWAY AND COMMERCIAL
 GAZETTE has correspondents and sources of information in almost
 every quarter of the globe. Its policy is absolutely independent;
 its circulation is cosmopolitan; and its literary scope embraces the
 entire field indicated by its title.

THE MINING JOURNAL is neither controlled, nor is any
 interest in it held or exercised, by any mine owner, speculator,
 or syndicate; and it is in no way connected with any share-
 dealing agency.

TO CORRESPONDENTS.—Letters on Editorial Matters, or containing
 literary contributions should be addressed to "THE EDITOR." All matter
 intended for insertion must be written on one side of the paper only. The
 return of rejected manuscripts cannot be guaranteed. The Editor invites
 correspondence and items of news or information from readers in all parts
 of the World.

TO SUBSCRIBERS.—The Annual Subscription to THE MINING
 JOURNAL, including postage, is for:—

The United Kingdom, £1 4s.;

Abroad, £1 8s.;

payable half-yearly in advance. It can be purchased at all Railway Book-
 stalls and Newsagents throughout the United Kingdom for 6d.

TO ADVERTISERS.—The following is an abbreviated Scale of Charges for
 Advertising:—Companies' Prospectuses, £12 12s. per column, or £20
 per page; Companies' or Legal Announcements, 9d. per line, with a Min-
 imum charge of 7s. 6d.; Sales by Auction, Publications, For Sale, Wanted,
 &c., &c., 8d. per line with a Minimum charge of 4s.

Displayed (Trade) Advertisements of 2 inches in depth (or more), Single
 Column measure, will be inserted at the following rates:—For 52 inser-
 tions 2s. 6d. per insertion for each inch in depth; for 26 insertions 3s.
 6d. per insertion for each inch in depth; for 13 insertions 5s. 6d. per inser-
 tion for each inch in depth. Terms for special positions and contracts may be
 had on application.

* ADVERTISEMENTS (which should in all cases be sent direct to
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 of THE MINING JOURNAL, RAILWAY AND COMMERCIAL
 GAZETTE, on FRIDAY, at 18, FINCH LANE, E.C., up till 6 p.m., and
 at 3, DORSET BUILDINGS, SALISBURY SQUARE, E.C. until 9 p.m.

Editorial and Advertisement Offices:

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Telegraphic and Cablegraphic Address: "TUTWORK, LONDON."

Codes used: "A.B.C." Moring's, and "Universal."

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LONDON: AUGUST 31, 1895.

WET VERSUS DRY CRUSHING OF GOLD ORES.

MINERS and metallurgists who are engaged in the extrac-
 tion of gold from its ores are at present greatly
 concerned with the question whether it is better to crush
 such ores wet or dry, and in view of the large amount of public
 interest that this discussion is provoking, extending, indeed,
 even outside purely technical circles, we propose to lay before
 our readers a short abstract of the principles involved, so as to
 better enable them to follow its developments. At first sight it
 might be supposed that, if ore can be crushed successfully in a
 perfectly dry state, or just as well in a continuous stream of
 water, then must all intermediate stages be equally admissible,
 and the degree of wetness of the ore be a matter of absolute
 indifference. This is, however, an error, and a most pernicious
 one, non-avoidance of which has led to repeated failures. It
 cannot be too emphatically stated, or too clearly understood,
 that ore must, as milling practice stands to-day, be either
 thoroughly dry, or else be thoroughly wetted by being crushed
 in a stream of water. Ore in an intermediate state of damp
 cloginess, in which screening is an absolute impossibility, cannot
 be satisfactorily treated by any method at present in use.

In the very early days of ore treatment, all ore was crushed
 dry, and such is still the practice among all savage or semi-
 civilised nations that concern themselves with the extraction of
 gold, which is about the only metal worked by such tribes.
 From crushing between two stones, a hand pestle-and-mortar
 came to be used, and the next step seems to have been a rude
 power pestle, or elementary form of stamp. The first stamp
 mills of which we have any record appear to have been at work
 in Saxony about the end of the fifteenth century; these were
 dry stamping mills, and it is said that the dust produced by
 them was found to be so injurious to the men working about
 them as to cause them to be looked upon with considerable dis-
 favour. About the year 1510 a wet stamping mill was intro-
 duced by a certain SIGISMUND MALTHITZ, who is said to have
 received a liberal reward from the then Duke of SAXONY for his
 invention. Wet stamping, thus introduced, remained the
 acknowledged method of ore crushing; and of course, in this
 connection, it must not be forgotten that in olden times, before the
 days of WATT, a crushing mill of any kind could only be driven
 by water power, and was, therefore, always erected in close
 proximity to a stream, whence an abundant supply of battery
 water was readily obtainable. In the early days of gold mining
 —we are, of course, speaking of quartz mining, not of alluvial—
 the first reduction machinery used in the pioneer State
 of California was the arrastra, which was borrowed from the
 native Mexican miners. Very soon, however, European miners,
 who had seen stamp mills in their own homes, erected similar
 mills, and these were naturally wet crushing ones, driven by
 water-power, as steam-engines were not readily avail-
 able on the Pacific Coast in those days. Ever
 since that time an improved type of stamp mill,
 crushing wet, has been the universally, or all but univer-
 sally, adopted machine for the crushing of gold ores. Incident-
 ally, we may note that it was also used in the same way for the
 treatment of silver ores in the North-western States of America;
 after a while it was found that certain silver ores could not be
 treated by direct wet amalgamation, but had to be calcined
 preparatory to being treated by certain chemical processes. In
 their case the stamp mill accordingly reverted to its original
 type, and was used again as a dry crusher; it soon proved, how-
 ever, not to be well adapted to this application, the great diffi-
 culty consisting in getting the ore out of the mortar-box after
 it was sufficiently stamped, although exhaust fans and similar
 contrivances were employed. Dry crushing in the stamp mill
 was never really a success; not more than 1 ton per head per
 24 hours could be crushed, as against 3 to 4 tons when crushing
 wet, and the expenses for various reasons mounted up so
 fast that it cost upon the average about five times as
 much to dry-crush as to wet-crush an ore in the
 stamp mill. Silver miners accordingly resorted largely to other
 machines, more particularly to high speed fine crushing rolls, of
 which the Krom rolls are a well-known example. Meanwhile,
 in spite of various spasmodic attempts to introduce dry crush-
 ing of gold ores, in connection with dry amalgamators, dry
 concentrators, &c., none of which ever attained any degree of
 success or popularity, practically the whole of the gold won in
 reef mining was extracted by wet crushing, and probably at
 least 90 per cent. of it in gravitation stamp mills.

Of recent years, however, a change has been coming over the
 conditions of gold mining, which may well, *mutatis mutandis*,
 be compared to that which we have referred to as having taken
 place in silver. Modern improvements have been introduced
 into the practice of gold extraction that have allowed of the
 profitable treatment of low grade and refractory ores, and the
 simple process of amalgamation has been to a greater or lesser
 extent superseded, or at any rate largely reinforced, by compli-
 cated chemical ones. The epoch of rich free-milling surface ores
 has come to an end, and with it the glorious period of indiffer-
 ence to the loss of gold that occurred in the course of its treat-
 ment. For a long time the fact that heavy loss was taking place
 was known to but few mining engineers, and these, apparently, did
 not find it to their interest to draw public attention to the
 fact. Now this point has been most thoroughly studied, as
 witness the valuable Governmental report on the losses of gold
 in Victorian gold mining, an abstract of which we laid before
 our readers a few weeks ago. With the recognition of the loss
 came the endeavour to avoid it, and processes of concentration,
 chlorination, and cyanide extraction followed each other in
 bewildering succession. It was soon evident that the bulk of the
 loss took place in the form of slimes, particles of gold or of
 auriferous pyrites being liberated in a state of such extreme
 division that their weight no longer sufficed to overcome the
 cohesive power of the water current in which they were sus-
 pended, and in which they were accordingly unable to sink.
 These rich particles were, therefore, necessarily carried away by
 the stream of water in wet crushing, and constituted a very
 heavy source of loss. It is obviously impossible to prevent the
 formation of these slimes; their existence is often looked upon
 as evidence of imperfection in the crushing machinery, but this
 view is evidently not correct in the majority of cases. If the
 precious metal exists, as it does in a vast number of ores, in
 particles of microscopic size, it is certain that these can only be
 liberated and dissolved by the mercury used to amalgamate
 them, when the ore is crushed to a corresponding degree of
 fineness. Hence the formation of slimes is in these very
 numerous cases necessitated by the nature of the ore itself
 instead of being due to a defect in the machine.

There is, however, an obvious way in which the loss of float
 gold in slimes may be prevented; produce float gold as much
 as you like, but do not carry it off in your stream of water.
 In other words crush the ore dry. This is the train of
 reasoning that has brought us back once again to the serious
 consideration of dry crushing in gold extraction. The possi-
 bility of adopting this method of working is primarily due to
 the cyanide wet process. By this process, to begin with, it is
 not necessary to crush as fine as when amalgamation alone had
 to be relied on, because the solution can penetrate the pores
 of an ore and search out particles of gold that could not have

been touched by mercury, unless it were brought to the finest degree of comminution. There is, therefore, every reason to expect that before long the slime difficulty, as far as the cyanide process is concerned, will be a thing of the past. Slimes are a serious hindrance to this process, but as the fact that coarser crushing is admissible when this process is employed becomes more generally recognised, fewer slimes will be produced. The use of the cyanide process will thus extend, and hence we may expect to find that a system of coarser crushing with a less percentage of slimes will gradually come into use.

Let us now contrast two typical gold ores—one a hard, close-grained quartz, containing gold in comparatively large particles, such as many of the Nova Scotian and some of the Australian mines produce; and the other a porous spongy matrix, with the gold in a very fine state of division, such as occurs in the Lydenburg district and on the Rand. For the former no better mode of treatment is at present known than the ordinary one of crushing and amalgamating in the stamp mill, the pulp being run over copper tables, followed by suitable concentrators. The cyanide process is not applicable to such an ore, and the tailings leaving the concentrators should be too clean to be adapted for further profitable treatment. If the second ore were treated in this way much of the gold would be lost in the slimes as float gold. Such an ore should, therefore, be crushed dry, sifted, the coarser portions going back to the crushing machine, and the fine ore being run direct into the leaching vats. After the gold has been dissolved out by the cyanide process the tailings are run away to waste. Similar to this is the process now being successfully worked at the George and May Mines, on the Witwatersrand. Obviously there is one great difficulty in this mode of procedure. There are very few mines indeed in the world in which ore is brought out of the mine in a sufficiently dry state to admit of its being crushed and sifted without being first dried artificially or by prolonged exposure to air and sun. Ore may be got in a suitable condition in Western Australia, Arizona, and some few similar parts of the world; but these form the exceptions, not the rule. In most places, however, drying is not a very expensive process, and may be taken as costing only a few pence per ton. The ore as it leaves the mine will, of course, be broken down to about walnut size, or even smaller, by rock-breakers, and will then be dried, and pass on to the fine-crushing plant. We, ourselves, have a preference for good, high-speed rolls for dry fine crushing, but there are numerous machines on the market that may give results about as good. What is wanted is a uniform granular product with as small a proportion of slimes as possible. Such a product is then in the best possible condition for leaching, and the very fine gold which is lost in the slimes with battery amalgamation, is the first to dissolve in the leaching vat, and, therefore, to be saved. It may be urged that any coarse gold that might exist in the ore would not be dissolved, and would, therefore, be lost. It will, accordingly, become a question whether the loss of the coarse gold or of the float gold is the greater evil; but a better solution to this difficulty would probably be found in amalgamation after the treatment by cyanide. Thus let us suggest that the following plan of treatment might probably prove the most economical and efficacious in the present state of gold extraction:—The ore should be broken small (say) to hazel-nut size, by being passed through two rock-breakers, coarse and fine respectively, thence without any drying to two pair of rolls, the lower being set to crush very close. The crushed ore, without sifting, should go direct to the leaching vats. When the leaching and washing are completed, the tailings should be sluiced out by a moderate head of water over amalgamated copper plates that would catch any coarse gold, and thence through spitzkasten that should retain any particles that experience might prove to be too coarse, so that these particles might be crushed over again.

We have hitherto only been comparing this new method of dry crushing with the ordinary system of stamping from the point of view of efficiency, and have shown how, with a certain very large class of ores, a great improvement in gold saving is likely to result. We may now add that the first cost of such a dry crushing plant is very much less than that of a stamp mill plant, and that the current expense of operating the former, and the outlay for its repairs, will be only a fraction of that incurred in running the stamp mill. For all these reasons we venture to think that the above is the direction towards which the gold extraction practice of to-day is tending, and we believe that large bodies of very low grade ores will be found capable of being profitably treated by some such series of processes, although they might contain too little gold, and that in too fine a state of division, to admit of being worked to advantage by means of amalgamation in the stamp mill. At any rate, the experiment is worthy of being tried, and we hope that we may be afforded ere very long an opportunity of chronicling results obtained by it.

A REVIVAL IN THE METAL MARKETS.

IT is eminently satisfactory for shareholders in metalliferous mines, and for all concerned in the prosperity of the metallurgical and engineering industries, that at length there seems to be every prospect of a substantial revival in the metal markets. As has often enough been pointed out in these columns, it is impossible to dissociate metals from the general body of trade, and a rise in values cannot be expected except when the commercial and industrial outlook all round is reviving. At the present moment the business tendency is unquestionably upward. The long period within which buying has been restricted to the satisfaction of immediate requirements is drawing to a close, and purchases are once more increasing in all our staple branches of trade. The movement in textiles means an expansion of prosperity in the colonies, and, therefore, an increased outlay upon railway and other metal-consuming public works, and just now there is something like a "boom" in the textile trades. There can be no question of the genuine character of the im-

provement of trade in the United States, while prospects both in Australia and South America look brighter than they have done for a long while past. The huge sums of money which are being sent from Europe to Japan in payment of the Chinese indemnity will mainly be spent upon shipbuilding and military equipment, and, therefore, must exercise a direct influence in restoring vigour to the metal markets. In the meantime, new sources of demand for metals and machinery are opening up with the application of European capital and enterprise to the development of new territories in Africa. The millions which have lately been subscribed in London and Paris for the establishment of mining and land companies in Rhodesia, for instance, will be at least to a large extent returned in the purchase of railway material, machinery, galvanised iron, and other metal goods. Whilst all the outside influences thus tend towards revival, the internal condition of the metal markets render them peculiarly susceptible to any upward influence. For a long time past profits have been cut so low that production has been starved to its lowest possible limit. In copper, for instance, any further extension of the consumptive demand in America seems likely to result in a short-fall of supplies for this country. Already American producers are endeavouring to escape from forward contracts, and the demand for refined sorts at home has strengthened considerably. This combination points to a decided advance in copper prices during the next few months. To a smaller extent the same remarks apply to tin, and with any marked revival of the demand from the United States for tin-plates the prices of the metal must inevitably become stronger. In iron and steel, manufacturers are assuming a position which augurs well for the future. While consumers are pushing forward specifications under current contracts, producers are anxious to avoid committing themselves to too heavy contracts at existing rates. At present the actual improvement in demand is mainly due to colonial and South American enquiries; but as more activity is reported in the hardware and engineering branches, it should not be long before this is supplemented by an augmented demand for iron and steel on home account. It is very satisfactory, at all events, that the level of prices in England and on the Continent rests pretty much the same, and that reports from German and Belgian metallurgical centres are more encouraging than they have been for many months past. Stocks throughout the metallurgical industries are low, and it would not be surprising to see a repetition of the rapid inflation of prices which marked the metal market "boom" of 1889. Then, as now, one of the features of the financial position was extensive speculation in gold mining shares, and it is, after all, only natural that activity in one department of enterprise should extend in time to others. And, as we have said, no improvement can take place in any branch of finance or commerce without some share of its results accruing to the metal markets. Taking a broad and general survey, there would seem every reason to believe that we are at the beginning of a strong upward movement in the prices of metals.

NOTES AND COMMENTS.

ONE of the most striking indications of the unusual activity which has pervaded the City during the present year is to be found in the circumstance that, though we are now in the very midst of what is usually the quietest time in the twelve months, important meetings are still being held in rapid sequence, and the succession of new mining enterprises passing from the obscurity of the promoter's office into the full light of public advertisement gives no sign of falling. According to all accounts, affairs on the Stock Exchange are lively, almost without any diminution upon the briskness of the last six or seven months. We hear of brokers and brokers' clerks being suddenly summoned back to town from the enjoyment of a well-earned holiday on the South Coast (or on the shooting moors of the North, and of well-known denizens of the City circles refusing to take a vacation at all. It is impossible to deny ourselves the pleasure of comparing this spread of business activity with the years of stupor by which it was preceded; and, although according to some generally wisely-spoken financial prophets, we are not yet quite on the crest of the wave, we have already experienced a sufficiently pronounced period of prosperity to make up in no small measure for the long and dreary period of waiting, happily brought to a close about the middle of last year.

The question whether there is going to be a boom in British mines is brought prominently into mind, not only by Mr. Davies's letter, which we publish in our columns to-day, but also by the lately-issued report of the British Gold Fields (Limited). Mr. Davies sends us information of a rich strike in the Clogau Mines, which has impressed him very favourably in regard to the future of the company. In character, it appears to be of sufficient permanence to justify a strong belief in the ultimate success of the company. With regard to the report of the British Gold Fields, the highly satisfactory result which has followed upon the fifteen months' working is shown in the main fact that a profit of £12,025 has been realised. Not very many years ago the possibility of a home gold mining company turning out in a little over a year gold to the value of £25,955 would have been laughed at as an extreme improbability. To-day the fact stands as an eloquent testimony at once to the able management of the company concerned in bringing about such a result, and to the capabilities of Welsh mining, if carried out with spirit and prudence. From very early times we have more than once hinted at the possibilities latent in British gold mining if the same business qualities were brought to bear upon the home industry as are ungrudgingly devoted to the same remunerative pursuit in other parts of the world. There are very clear indications, at least, of a revival, in Welsh gold mining, and we shall watch its ultimate development with keen interest.

THE leading feature in the report of the Johannesburg Consolidated Investment Company is certainly the diversion of so large a sum as £796,000 from distribution to reserve and suspense accounts. Undoubtedly this is a large sum—too large some critics may consider—but the reason assigned by the directors for so severe a policy of account must be allowed by all clear-sighted and impartial judges to carry considerable weight. "In view," they say, "of the large amount of capital required to deal with undertakings which are constantly arising in connection with the development of the Transvaal, the directors deem it expedient to retain large resources on hand." Probably at the forthcoming meeting in September, a good deal of the shareholders' criticism—sharpened by the keen sense of a loss of individual revenue—will be directed towards this joint in the directoral armour, if so it is to be considered. The shareholders might, perhaps, fairly ask for more light to be thrown upon the rather obscurely-hinted-at "undertakings" which are "constantly arising in connection with the development of the Transvaal." While making every allowance for the inadvisability of publishing names and details involved in negotiations still pending, it might certainly seem that a little more might be divulged without in the least imperilling the security of the consolidation. At the same time, it is wise not to lose sight of the constantly-verified epigram that "circumstances alter cases." Silence may upon occasions be something more than golden. It may even be—figuratively speaking—diamondiferous. There remains yet to be seen whether this is a case in point.

A MORION lately introduced into the Chamber of Mines, at Coolgardie, proclaiming the desirability of establishing local offices and a register of local shareholders in connection with West Australian mines, encountered so much opposition at the hands of the members that it was, by leave, withdrawn. Many boards of direction would, we feel assured, rather resent the imposition of such a regulation as is here described, and the compensating advantages to residents in the colony are at least not such as carry instant conviction to the enquiring mind. The increased facility for the transfer of shares might foster the spirit of local gambling, but the shareholders at home, who for the most part, at least, are desirous of acquiring solid investments rather than an interest liable to more or less wild fluctuations of value, would not have their advantages subverted by the constant succession of mining echoes that would probably pass over the water. It is by no means certain that such an arrangement would not injuriously affect the interests of the community in which it originated. Though it would not seriously bar the way to the introduction of outside capital, a regulation of the kind mentioned might conceivably deter some syndicates and companies from acquiring properties where they could not enjoy immunity from hampering conditions. Under the proposed arrangement the local shareholders would have their English co-partners at a constant and not inconsiderable disadvantage. News would be later and, perhaps, more reliable when gained on the spot, than after travelling some thousands of miles across the sea, and the local dealer would certainly have the London shareholder "on the hip," a condition of affairs conducive to the permanent interests neither of colony nor mother country. So the Chamber of Mines in rejecting the proposition without a vote, was to our thinking, very well advised.

THE formation at the Cape Colony of a Navy League, whose object it is to contribute towards the maintenance and perfection of the British Navy—upon whom, of course, lies the major part of the responsibility for the preservation intact of the Imperial fabric—is certainly one step forward towards the desired end of Imperial Federation. Hitherto, our colonial relations, though anxious almost as ourselves for the completion of some Federation scheme, have displayed an indisposition to share our national burdens in addition to their own, and this bold initiative on the part of the Cape colonists should exert considerable influence for the good upon the rest of the colonies. The force of an example of this kind cannot easily be estimated, but must, at the most unfavourable estimate, be something considerable. There are, of course, reasons of a forceful character, which explain why South Africa should take the lead in this matter. The rest of our colonies are comparatively seceded from the disquieting influences of too close a neighbourhood with a foreign power. South Africa, on the other hand, seems to be the arena in which the European powers will, if anywhere, work out their future conflicts. It is, moreover, an unpleasant fact that some far-sighted men at the Cape are apprehensive of future trouble with the South African Republic, and the presence of a powerful squadron somewhere off the Natal coast will be a convenient thing to have in troubled times, and might lend no small influence towards ultimately working out the problems at issue. It only remains to hope that the other British colonies will follow the excellent example of their South African fellow-subjects.

THE organisation of a higher scale of efficiency of the Chilean army may, according to the temperament of the enquirer, be interpreted as tending either towards pacification or aggression. Whether a state of constant preparedness for belligerency makes for war or peace might be a matter of dispute between the German Emperor on the one hand and the Peace Society on the other, but there can be no doubt that the new Chilean cabinet are setting energetically about the work of raising the standard—in excellence, we mean—of the forces under their charge. So far as this move has its effect upon the peace of the South American Republics it has a very serious import for mining men. The value of English interests in the narrow strip of land between the Cordilleras and the sea must now be something enormous. Things there are now changed considerably from what they were when Darwin heard of scores of pale-faced men carrying ore up a distance of 450 feet in 200 lb. packages. Crude methods may

still obtain in some of the out-of-the-way districts, but for the most part mining, as carried on there, is fully abreast of contemporary development. The native population, too, is rather more knowing than when large deposits of pyritic copper ore were sold for a few shillings in the cheerful conviction that they were worthless. In any case, the country can hardly afford the loss and bloodshed of a war, even though carried on by their own National Guards, highly disciplined by German officers.

Mr. ALBERT CALVERT's speech from the chair at the statutory meeting of the Consolidated Gold Mines of Western Australia gave a very clear reflection, not only of the present position of that undertaking, but also of the course of events leading up to it. The properties owned by the company are, undoubtedly, large, as is also the working capital at command for their exploitation. Calculating upon the bare law of chances, it is not probable, even if possible, that so many eggs—to use the expressive if time-worn metaphor—as those in the ownership of the company should all turn out to be added. The work of completing the liquidation, and the more constructive one of the transfer of the properties to, and the amalgamation of the various companies' interests in the new undertaking, delicate and complicated though it must have been, is at length completed, and the Consolidation is now in titular possession of ten properties, with an extent of 144 acres. From this statement it will at once be seen that the sphere of the company's operations is sufficiently extended to satisfy a liberal ambition. The Chairman is strong in the belief that considerable advantages in economy and efficiency will accrue from the method of working the mines in groups. To some extent, it appears, the company's operations will be conducted in conjunction with the North-West Australian Gold Fields Company. The directors of the former enterprise are, according to their Chairman, sanguine enough to "consider that this working arrangement between the two companies" gives them "the premier position on the gold field." It is not necessary to concede the whole of this claim to see that such a working arrangement as is here indicated may be productive of highly beneficial effects to the company whose affairs we have been briefly considering.

When the French have finished their badly-conceived, but passably-executed, expedition to Madagascar it is possible that the island may be thrown open to the influx of outside capital, and that mining may be commenced there in earnest. At present, though the country is known to be rich in minerals, few enough of the natural resources are turned to account. Some few natives have developed sufficient enterprise to lease certain areas for a given time, and to work them with the rude and primitive appliances commonly resorted to by the untutored miner. Nothing like a serious and systematic exploitation of the mines in the island has yet been attempted, but the results attained even by desultory and scrappy working seem to show that Madagascar is well worth the close attention of the Western miner. One gold nugget, weighing 54 ounces, has lately been won. Gold, however, is not the only precious product of the mines. Diamonds and other less precious stones are found in fair abundance, and coal exists sufficiently plentifully to well repay working. Already a certain number of Europeans have concessions in the domains of the dusky Queen, but their operations are to some extent hampered by Royal regulations. What will happen when the French are in power at Antananarivo is, perhaps, doubtful; but, in all probability, the border of the country will not be quite so jealously guarded against foreigners.

The mails just to hand bring full particulars of the fire at the Broken Hill Mine, which evidently from the accounts published—many of which were written from hour to hour as the conflagration progressed—was by no means insignificant in character and extent. As the flames spread from point to point the miners tried by every resource of ingenuity to cope with them. Water was poured down in floods, and possible channels between the ignited parts of the mine and others still unaffected, were carefully stopped up by wet bags, sand, and blankets. The men did excellent work in their efforts to get the fire under, and, serious though it must have been, there might have been even a worse tale to tell but for their unremitting energy and their contempt of danger. The shareholders in London, while under the influence of the misfortune which the fire has brought upon them, should certainly remember with gratitude the work of their employees—unceasingly pursued at great peril to limb and life—to minimise the damage done to their property.

SOMETHING of what the early seekers after gold have had to contend against in their pioneer work within the West Australian borders is reflected in a letter recently written by one who has, to use the conventional phrase, "been through the mill." Railways, it is well-known, already exist in parts of the country, and others are projected, but railway travelling there differs materially from railway travelling in England. A pace of 16 or 17 miles an hour, occasional stoppages of 30 or 40 minutes at the "different stations," and a jolting to be appreciated only by those who have sometimes obtained the enviable privilege of taking a short trip on a shunting engine—these appear to be the normal experiences of railway travelling in some outlying districts of Western Australia. As for the scenery, if so it may be called, of the country tracts between Perth and Coolgardie, it is of the most flat and depressing description. "There is," says the correspondent, in a melancholic vein, "no variety of trees as in the woods at home; there are no banks, no dells, no flowers, no animals—nothing but miles of flat sand, with trees growing out of it. Everything looks dried-up." His description of the general appearance of Southern Cross, and the extent to which insensitisation has been carried there, are too pessimistic for quotation, and may possibly be referable to the depression engendered by a first acquaintance with uncongenial surroundings. With due allowance, however, for embellishment, there is enough substantial discomfort described in the letter to show that prospecting is not the most fascinating pursuit known to man.

THE MINING MARKET.

FRIDAY EVENING.

The Start of the Autumn Boom. — A Heavy Account Satisfactorily Arranged. — Big Rise in Chartered and other Kaffirs. — West Australians improving.

THE Mining Market has now reached the period which has all along been selected as the starting point for the great Autumn boom. September has, by universal consent, been pitched upon as the month in which the buoyancy and excitement of the past were to be put into the shade by a *furor* without parallel within the memory of our generation. The start for this great event was to come "after the holidays," but for very many members of the Stock Exchange and their clerks, there has been no holiday season. We have arrived at September and find everything prepared for the fulfilment of the prophecy. The Settlement which has been in progress during the current week has disclosed the existence of a very large account for the rise, but there has been also an enormous business done for capitalists and smaller investors who have not had occasion to ask favours of those who dole out accommodation. The widening of the markets, not merely in France, and on the big European Bourses, but even in Wall-street and other American centres, to say nothing of the extensive support coming from Africa, has now placed the South African mining industry on so substantial a basis that doubts can no longer exist as to its permanent share in the financial world. On a less extensive scale, though with increasing widenings, is the West Australian gold industry establishing itself in public recognition. The business in these two departments of the London Stock Exchange now completely dwarfs everything else, and this being the case, with such signs as are evident of the interest taken by the outside public in the movement, there seems little risk in accepting the general view that the Autumn boom will accomplish much that the prophets have foretold. At the same time prices have now reached so high a level that the utmost care is necessary in the selection of shares for purchase. We do not mean by this that much discrimination is necessary in the selection of shares that may go temporarily better. The thing is to avoid getting landed with stock which will ultimately be unsaleable except at a ruinous loss. This is a great danger of boom times. Speculators have no time for discernment. They follow "tips," and rush in to buy anything and everything without attempting to separate the wheat from the chaff.

The carry-over in the Mining Market made a satisfactory start on Monday, but the business to be arranged was far too large for one day's adjustment. Well into Wednesday dealers were engaged with the Making-up, and as has happened on several previous occasions, there was a good deal of picking and choosing, not merely in the stocks taken in, but in the individuals to whom accommodation was extended. The floating amount of money in the Market has naturally to be increased with the appreciation of prices, or else the number of shares carried over must be curtailed. There has never been a lack of capital facilities in the African section for men of substance; but, on the other hand, the Westralian market is by no means well supplied with funds for Account purposes. The fact that a speculative Account is practically at the mercy of the big money lenders is an unfavourable factor that must not be lost sight of. It seems hardly worth while to enter into a dissertation upon the day-to-day movements of the present week. For the first four days the Settlement was in full swing, and engrossing the attention alike of dealers, brokers, and outside operators. During its progress a large new business was done under considerable difficulties. To-day we are fairly launched upon the new Account and markets are strong, with rising quotations on all sides. To-morrow (Saturday) will be a broken day, but Monday will witness an event which has been anticipated with an extraordinary amount of interest—viz., the introduction upon the market of the shares of an institution generally alluded to as "Barney's Bank." Rumour has been extremely active with circumstantial details of the flotation of this concern. We understand that a company has been registered under the title of the Barnato Mining and Estate Company (Limited), with a capital of £3,500,000 sterling, in £1 shares, and the general idea is that it is to be a trust company on a large scale for the manipulation of mining shares and other securities in which Messrs. Barnato Brothers are specially interested. It is anticipated that dealings will be started in the £1 shares at a premium of about 200 per cent., so that in the opinion of the market, this embryo creation is at once worthy of a capitalisation of ten million sterling. We need not further discuss this project at the present time, beyond drawing attention to the episode as a strong indication that the powers that be do not contemplate leaving the African Market to take care of itself.

South African Shares.

To give anything like a complete list of the fluctuations in the South African market during the past week is palpably impossible. The upward movement has been general, and where there are losses on balance they are quite insignificant. To commence with the Barnato stocks, we have to note improvements of $\frac{1}{2}$ in Buffels. at 9, $\frac{1}{4}$ in New Primrose at 8, and $\frac{1}{2}$ in Spes Bona at 3 $\frac{1}{2}$, whilst Crossus at 3 $\frac{1}{2}$, Ginsberg at 2 $\frac{1}{2}$, Glencairn at 4 $\frac{1}{2}$, Langlaagte Royal at 4 $\frac{1}{2}$, May Consolidated at 3 $\frac{1}{2}$, and Barnato Consols at 5 $\frac{1}{2}$ are all within a shade of last week's prices. The balance-sheet of the Johannesburg Consolidated Investment Company has come in for some strong criticism, which added to the disclosure of a weak bull account, with some difficulty in continuation, has brought about a slight reduction in the shares at 6 $\frac{1}{2}$. The Robinson Stocks have been inclined to dulness, and the only important change is a spurt of $\frac{1}{2}$ in Langlaagte to 6 $\frac{1}{2}$. Randfontein after touching 4, are slightly below that figure at the close. The shares of the Robinson Bank, which will answer the same unctious with regard to these shares as "Barney's Bank" to the other group, are half a point better at 11 $\frac{1}{2}$. Perhaps the greatest rush, at any rate on behalf of French operators, has been in Deep Level properties. The feature of the last day or two has been the spurt in East Rands, which are 1 $\frac{1}{2}$ better at 8 $\frac{1}{2}$, and are talked up to 10. The subsidiary Comets are $\frac{1}{2}$ better at 4 $\frac{1}{2}$, and St. Angelo $\frac{1}{2}$ higher at 6. Gold Fields Deep started at 9 $\frac{1}{2}$, and by Monday were over 11. They have since touched 12, but are finally 2 $\frac{1}{2}$ up at 11 $\frac{1}{2}$. Nigel Deep are a point to the good at 4 $\frac{1}{2}$, with Goldenhuis Deep the same amount better at 11. Rand Mines, which we left at 34, were 38 $\frac{1}{2}$ on Monday, and on Tuesday changed hands a small fraction under 40. There has since been a reaction to 38, which still marks a gain 4 on the week. Consolidated are 1 $\frac{1}{2}$ better at 7 $\frac{1}{2}$, and others in this group show minor improvements. A prominent lead has been taken during the week by Simmer and Jack which close 3 $\frac{1}{2}$ up at 23.

Knights again have been well supported from Paris and after going over 11, are 1 $\frac{1}{2}$ up at 10 $\frac{1}{2}$. The amalgamation of George Goch and Metropolitan has brought about improvements in the shares of both companies, those of the former being $\frac{1}{4}$ up at 3 $\frac{1}{2}$, and those of the latter $\frac{1}{2}$ better at 3. Modders have risen 1 $\frac{1}{2}$ to 15 $\frac{1}{2}$, Durban 3 to 8 $\frac{1}{2}$, Henry Nourse 1 $\frac{1}{2}$ to 7 $\frac{1}{2}$, Robinson's 3 to 11 $\frac{1}{2}$, Transvaal Gold 1 $\frac{1}{2}$ to 10 $\frac{1}{2}$, Van Ryn 3 to 10 $\frac{1}{2}$, Wolhuter 3 to 11, Jumpers 3 to 8 $\frac{1}{2}$ xd., and so on. African gold properties are firm at 4, and active dealings are reported in the shares of the first subsidiary company, the Randt Gold Mining recently formed with a capital of £80,000, all privately subscribed. The 5s. shares are strong at 8s. 3d.

Chartered have been a very strong market since the Account, jumping to 8 $\frac{1}{2}$, a gain of 1 $\frac{1}{2}$ on the week. The dealings in these shares were quite the feature of to-day's market. Consolidated Gold Fields are 2 $\frac{1}{2}$ better at 16 $\frac{1}{2}$, with Gold Trusts 1 $\frac{1}{2}$ up at 11 $\frac{1}{2}$, Oceana hard at 4, Oceana Minerals $\frac{1}{2}$ better at 2 $\frac{1}{2}$, New African $\frac{1}{2}$ up at 3 $\frac{1}{2}$, with growing business in Austral-African shares, which have been largely dealt in round 2 $\frac{1}{2}$, and are talked better. Anglo-French Explorations are 2 $\frac{1}{2}$ better at 6. Another company in this section which has come to the fore is Rhodesian Mining and Finance, the fully-paid shares being up to £2, whilst those with 10s. paid are quoted at $\frac{1}{2}$ premium, and are talked higher. Klerksdorp are rather easier at 26s. 6d., but Potchefstroom have risen $\frac{1}{2}$, to 2 $\frac{1}{2}$. Of the Lydenburg Properties also dealt in in the Miscellaneous Market, Lisbons are good with a gain of 4s., at 14s., and Spitzkops are $\frac{1}{2}$ higher at 2 $\frac{1}{2}$, with prospects of a much larger improvement. Diamond shares have participated in the general rise, De Beers being $\frac{1}{2}$ up at 28 $\frac{1}{2}$. Gordons have been run up from 9s. to 12s. 6d., and St. Augustines from 14s. to 16s. 6d.

West Australians.

We have already referred to the increased activity in this section, the lead in which has been taken by Great Boulders, which close 1 $\frac{1}{2}$ better at 6 "buyers," on flattering expectations of forthcoming crushings. The insiders predict very much higher prices for these shares. Associated Mines are $\frac{1}{2}$ higher at 1 $\frac{1}{2}$, and are regarded as a very good lock-up at the price. Brown Hills are 1 $\frac{1}{2}$ up at 4 $\frac{1}{2}$, and White Feathers have advanced $\frac{1}{2}$ to 2 $\frac{1}{2}$ on a highly satisfactory report. The Hampton group continues strong, Lundslosing at 6 $\frac{1}{2}$, Plains at 4 $\frac{1}{2}$, and Exploration 5s. higher on the week at 18s. 6d. Coolgardie Syndicate are 1 $\frac{1}{2}$ and considerable attention has been attracted to Westralia (Limited), the shares of which are $\frac{1}{2}$ better at 2 $\frac{1}{2}$. Mainland Consols have put on $\frac{1}{2}$ at 3 $\frac{1}{2}$, Lady Loch $\frac{1}{2}$ at 1 $\frac{1}{2}$, and Gold-Crown $\frac{1}{2}$ at 2 $\frac{1}{2}$. Among the Trust and Finance Companies prominent gains are shown in Finance at 4 $\frac{1}{2}$, Gold Estates at 2 $\frac{1}{2}$, and General Association at 2 $\frac{1}{2}$; Londonderry's after touching 3, have eased off to $\frac{1}{2}$.

Miscellaneous.

There is very little to record in this department, beyond a general inclination to follow the lead of Kaffirs. Copper shares have been well maintained, though Tintos are a shade easier at 18. Burma Rubys are 4s. up at 27s., and Wentworths are $\frac{1}{2}$ down at 1, with Broken Hills unchanged at 1 $\frac{1}{2}$. There is nothing worth talking about in New Zealand, Indian, or Charters Towers varieties.

British Mines.

The Cornish Market has been a shade firmer this week, and Dolcoaths commanded attention, and a good many fully-paid shares have been quietly absorbed at about 20s., while on the partly-paid 1s. 6d. prem., has been bid without evidencing business. If a number had been available at a higher price they would probably have been taken. Carn Brea steady at 24. East Pools about 4, and when matters are arranged with Wheal Agar higher prices may be expected. Tincrofts are lower, with sellers at 8 $\frac{1}{2}$, but there seems no reason for the fall. Wheal Bassets steady at 50s. Grenvilles about 13 $\frac{1}{2}$. 12s. 6d. bid for Wheal Kitty's, but at the moment there are no sellers; the lode in Vottle's shaft continues good. Risen: None. Fallen: Blue Hills, 5s.; Dolcoath (2s. 6d. paid), 2s.; Killifreth, 2s. 6d.; South Crofty, 5s.; South Frances, 2s. 6d.; Tincroft, West Kitty, 5s.; Wheal Bassett, 5s.; Wheal Kitty, 2s. 6d.

STOCK EXCHANGE SETTLING DAYS.

Settling Days on the Stock Exchange are as follow:—

CONSOLS.

Monday, September 2 | Tuesday, October 1

STOCKS AND SHARES.

AUGUST.

Ticket Days. Wednesday, August 28 | Account Days. Thursday, August 29

SEPTEMBER.

Wednesday, September 11 | Thursday, September 12

Thursday, September 26 | Friday, September 27

Contango Days for South African Market:—

Monday, August 26 | Monday, September 9

Tuesday, September 24.

CORRESPONDENCE.

We wish it to be understood that we do not hold ourselves responsible for, and do not necessarily endorse, the opinions of correspondents. All communications must be accompanied by the names and addresses of the senders though these need not necessarily be published.

THE CLOGAU GOLD MINE—A RICH STRIKE.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—You will be interested to learn that another rich strike of gold has been made at the Clogau Gold Mine, North Wales, at the bottom of the mine which is being sunk on the lode below the adit level, at a total depth below the surface of nearly 500 feet. This find is of the greatest importance, as it proves the continuance in depth of the rich shoot of gold which has been followed downwards from the surface with such marked success, the milling of which has yielded 191 ounces to the ton on over 2000 tons of ore crushed.

The gold in the new find is plainly visible to the naked eye, and there is every reason to believe that the bulk of the ore below the adit will give as good milling results as that obtained above it.

There is every prospect of this mine being worked in a vigorous manner in the near future. In the past its output has put to shame the richest mines in the Transvaal, in spite of the primitive appliances used for recovering the gold.

With modern methods and machinery it should maintain a foremost place as a gold producer.—Yours truly,

E. HENRY DAVIES, M.E., F.G.S.

Royal Hotel, Dolgelly.

LATEST FROM THE MINES.

CABLEGRAMS AND TELEGRAMS.

ALADDIN'S LAMP.—The following cablegram has been received from Mr. C. G. Warnford Lock, the new superintendent at the mine:—"The total return for the last four weeks is 1285 ounces of gold (approximate value £4680)—namely, 270 tons of ore crushed have yielded 860 ounces, and 4 tons of rich ore have been shipped, containing 425 ounces. The stopes still hold good. The ball mill resumed work on August 19."

BECUANALAND EXPLORATION.—The Bechuanaland Exploration Company (Limited) has received the following cablegram from its general superintendent in Bulawayo:—"There have been wonderful discoveries in ruins near Belingwa, gold ornaments, bangles, beads, weighing 208 ounces troy."

BIG BLOW.—The following cablegram has been received on the 24th inst. from Mr. W. M. Vivian, the manager:—"Sufficient water for 10 stamps. Expect increase the quantity as we go deeper. We have been waiting for cement for concreting the foundations for mill. Will commence to erect the mill next week."

BROKEN HILL PROPRIETARY.—"Report for the week ending August 29, 5953 tons of ore were treated, yielding 539 tons of lead, containing 122,206 ounces silver, also 1696 tons treated by amalgamating and leaching plants producing 27,855 ounces silver. The price of the shares in Melbourne is £1 10s. 6d."

CARRINGTON.—The manager has cabled (August 29) from Charters Towers, as follows:—"Floors are coming in very quickly in the shaft. Indications are favourable for reef formation. I cannot estimate the exact depth it will be intersected."

COLOMBIAN HYDRAULIC.—The directors have this day received the following cablegram from their superintendent:—"The mine has been suspended by Señor Paris for 18 days. Shall not be able to recommence, pending the decision of the Court. Am now sending £800." The directors do not anticipate that this will result in any serious delay.

CONSOLIDATED MURCHISON GOLD.—Cablegram from mines:—"460 tons ore crushed, yield 418 ounces gold."

CROMWELL.—The following advice has been received by mail, giving the result of a clean-up by the tributaries to 9th ult, viz:—"71 tons yielding 100 ounces 11 dwts. of gold."

CENTRAL DE KAAP.—The following cablegram has been received from the manager, viz:—"Strike reported in No. 4 shaft, average assay value of ore 1 ounce 7 dwts." According to the latest information the width of the lode here was 7 feet.

COLEBRANDER'S MATABELELAND DEVELOPMENT.—A cable has been received from the managing director, dated August 26, as follows:—"I have found fresh reef, Golden Quarries, 4 feet. The result is very satisfactory."

DAY DAWN BLOCK AND WYNDHAM.—The directors have received the following cablegram from the general manager at Charters Towers, giving the result of the crushing for the fortnight ending 24th instant:—"Tons crushed, 1020; yield of gold, 742 ounces; approximate value, £2560; fortnight's expenses, £1760."

DURBAN-ROODEPOORT.—The directors have received a cablegram to the following effect:—"Eighty stamps running."

ELKHORN.—"Bullion produced in the mill for the week ending August 25, 9300 ounces."

GEM OF OUE.—The following cable has been received from the company's agents, at Oue:—"Whitelaw reports good is still being found. Are now sinking. Have sent full particulars by letter."

GREAT SOUTHERN TIN.—The mining manager reports:—"Toora, Australia, July 23: Tunnel at south end the past fortnight has been driven 22 feet, total 470 feet 6 inches. North end. Rock cutting same time advanced 111 feet, total 211 feet. By cable: "A further trial of the gravel deposit assays 5 ounces 16 dwts. of gold per ton of tin sand."

HAMPTON PLAINS EXPLORATION.—The directors have received the following cablegram from their agents in West Australia, Messrs. Bowick, Moreing, and Company:—"Have secured nine claims of 50 acres each, and two claims 25 acres each on Block 45. Also two claims on Block 48."

HAWK'S VIEW.—A cablegram has been received from the Hon. W. O. Hodgkinson, managing director, stating that he has taken possession of the property on behalf of the company, that the mine is looking well, and that work is actively proceeding.

HEIDELBERG.—A cable to the following effect has been received from the manager at the mines:—"Samples taken from the three shafts in course of sinking show an average assay of 2 ounces 2 dwts. per ton."

HANNAN'S REWARD.—The following cablegram has been received from the manager at the mine, dated August 24:—"Water level has been reached; little water showing; the country rock is full of arsenical pyrites."

HENDERSON AND FORBES.—The following is an extract from a letter recently received from Mr. Forbes:—"I have been prospecting on this property for over two weeks now with a strong party, and found one reef that averages 15 dwts. per ton; but it is only 1 foot wide where we found it, but likely by following it up it may be wider in other places."

MOSMAN.—The directors have received the following cablegram from Charters Towers:—"North Australian Shaft: 182 tons have yielded 282 ounces of gold.—Wyndham shaft: 133 tons, have yielded 148 ounces of gold. Have shipped 392 ounces of bullion per s.s. *Merkara*. The approximate value of the above returns is £1350."

MOUNT MORGAN.—The following telegram has been received from the head office, Rockhampton:—"We pay £2500 on September 2, being dividend of 6d. per share (free of dividend-tax) for the month of August."

MOUNT ZEEHAN (Tasmania).—A telegram received on August 26 states:—"No. 8 lode, No. 2 level north, 9 inches of galena. The ore assays about 75 per cent. lead and 100 ounces silver per ton. All the works looking well. Developments opening up splendidly."

NEW GUSTON.—The following cable information has been received from the mine:—"Output, July month: Ore shipped, 2360 tons. Value (estimated), \$26,500. Mine expenses, \$16,000. Ore shipments: The tonnage for July month, viz., 2360 tons, consisted of five carloads (51 tons) of high grade ore shipped to the Philadelphia Smelting and Refining Company, Pueblo; 19 cars (199 tons) of high-grade ore shipped to the San Juan smelter, Durango; and 186 cars (2110 tons) sent to the Silverton smelter."

OTTO'S KOPJE.—Mr. Lisle cables that after a stoppage of a fortnight for repairs, washing was recommenced on Monday, 26th inst.

PRINCESS ROYAL MINE.—The directors of the West Australian Gold Concessions have received a telegram from their representative, Mr. A. Spencer Eilam, to the following effect:—"The number of tons of ore in sight at the mine is 4000."

SIMMER AND JACK.—Last month's profit was £9600.

RICHMOND CONSOLIDATED.—Mr. Henry Wright, the joint manager of the Richmond Company's lease, and the four leases of the Mount Rowe Consolidated Mining Company (Limited), in the Coolgardie gold field, has now arrived at the mines, and has sent the following telegram, which would refer to both properties:—"Developments opening up splendidly, have made arrangements for trial crushing 50 tons of ore. Gold visible to the eye."

SALISBURY REEF.—The managing director at Salisbury, cables.—Manager reports:—"Have struck a seam of 5 feet in width, Alpha block, panning gives good results, 30 dwts. per ton. Samples will be sent."

SALISBURY-MURCHISON (LIMITED).—Mr. Wattis, of Ballarat, has been appointed manager and will proceed to the mines immediately. The hoisting machinery has been ordered, and will be shipped at once.

SELUKWE DEVELOPMENT SYNDICATE.—The following cablegram has been received from the Hon. Maurice Gifford (local director), dated Bulawayo, August 26:—"Have returned from Tebekwa, have struck the orebody in west drift, main reef, 9 feet; we are not yet through. Strike made in Mackinnon's shaft, 80 feet, assays 2 ounces per ton; south shaft, 100 feet, assays 15 dwts. per ton."

ST. JOHN DEL REY.—The following telegram has been received from Mr. Chambers:—"Produce 10 days, second division August, 9000 oitavas, equal to 1037 ounces troy; value, £3487; yield per ton, 601 oitavas (7032 ounces troy)."

SPRINGDALE.—The following cable has been received in London:—"Gold Standard Mine: Shaft has reached a depth of 125 feet. The body of ore is increasing in width—3 feet first-class ore. Have struck a large body of ore in the east level. The mine superintendent's report is most encouraging."

TATI CONCESSIONS.—The directors of this company have received a cablegram from Mr. C. R. Vigers, their resident general manager at Tati, as follows:—"New Prospect Mine. Have cut the vein on the 62 feet level; the width of the vein 2 feet. Average assay value of ore in the mine is 4 ounces."

UNITED MATABELE CLAIMS DEVELOPMENT.—The following cablegram has been received from the representative of the company, at Bulawayo:—"Home Rule. Struck ore assaying 15 dwts. per ton. Camperdown strike still holds good."

VICTORIA GOLD MINING ASSOCIATION.—The following cable has been received:—"For four weeks 555 tons crushed, yielded 633 ounces gold."

WAIHI SILVERTON EXTENDED GOLD.—The following is a copy of cable received from Auckland:—"The crosscut from the shaft has cut the Silverton lode. The width of the lode is 14 feet wide, average assay of lode being value per ton £6 10s."

WAIHI.—Cable advices report month's crushing diminished by frost, now passed away. Better returns expected in future. For the four weeks ending August 24 last, 2700 tons were crushed for a yield of £9500. The Martha reef has been cut and driven into for 4 feet, assaying, as far as driven, 16 dwts. per ton.

D'ARCY ESTATES.—The report dated July 20 states that the main shaft is now down a total depth of 464 feet. Progress for the week 8 feet. Formation continues same.

ORITA.—The following report from the mine has been received at the London office:—"Mine: I cannot yet report that the break at Medina is repaired. On inspection we find that to make a good job of this it is necessary to put in 180 feet more flame. As heavy lumber is a great distance off we have placed on bridge iron rails in place of wood. To carry out all repairs it will yet take us 20 days.—H. J. Prender."

The LISTS will OPEN on TUESDAY, 3rd September, 1895, for TOWN and COUNTRY APPLICATIONS, and CLOSE the SAME DAY.

LOMATIE (CLYDENBURG) EXPLORATION COMPANY (LIMITED)

Capital £150,000, in 150,000 Shares of £1 each.
Now Offered for Subscription - 50,000 Shares,
to provide £50,000 Working Capital.
Payable 5s. on Application and 5s. on Allotment, and 10s. on November 1st.

DIRECTORS.
J. H. VAN RYN, Director Van Ryn Gold Mines Estate, Ltd. (Chairman).
L. B. BURNS, Director Van Ryn Gold Mines Estate, Ltd.
S. CROWDER, Moodie's Gold Mining and Exploration Company, Ltd. (London Board).
F. A. GILLAM, 73, Cornhill, E.C.
F. C. HOLLAND, Chairman African Gold Properties (Limited).
J. M. PRILLEVITZ, late of Transvaal Government Mining Department.

BANKERS.
THE NATIONAL BANK OF THE SOUTH AFRICAN REPUBLIC, LIMITED,
73, Cornhill, London, E.C.

SOLICITORS.
INGLE, HOLMES & SON, 40, Threadneedle Street, E.C.
SECRETARY AND OFFICES (pro tem).
A. R. HERSEE, Tower Chambers, Moorgate, E.C.

PROSPECTUS.
This Company has been formed with the object principally of acquiring, exploring, and further developing a Block of Land, containing an area of about 74,892 English acres, comprising the following farms:—
No. 1. Schuistendal ... 7,748-30 English Acres.
No. 2. Middleplat ... 10,605-45 "
No. 3. Jeppe's Rust ... 7,694-97 "
No. 4. Boschfontein ... 7,916-16 "
No. 5. Langloep ... 6,034-43 "
No. 6. Langoep ... 10,499-21 "
No. 7. Lomatidraal ... 7,621-27 "
No. 8. Jeppe's Reef ... 8,249-94 "
No. 9. Buffels Spruit ... 5,967-69 "
No. 10. Vygeboom ... 4,557-18 "
74,892-57

By reference to the enclosed map it will be seen that this property adjoins the proclaimed De Knap Gold Fields in the Lydenburg district of the Transvaal, is about 20 miles east of Barberton, and within a few miles of Moodie's Gold Fields.

The nearest railway is the line from Delagoa to Pretoria, being about 14 miles distant.

The Directors are satisfied from information in their possession—

1. That Gold-bearing Reefs have been discovered, and development work has already been done by trenches, shafts, and crosscuts, to the extent of over 8000 feet.

2. That the farms are exceptionally well situated as to wood and water.

3. That there is sufficient water power in the Lomatie River, which runs through the property all the year round, for stamp mills of large capacity.

These advantages, combined with cheap labour, and proximity to the railway, should enable the Company to work even of a low grade, profitably.

The area of the estate, being about 115 square miles, will permit of the sale of portions, from time to time as opportunity occurs, without interfering with the operations of the Company.

Vigorous prospecting operations will be at once commenced. The Vendors have fixed the purchase price of the property at £100,000, the whole of which they have agreed to take in fully paid-up shares, thus leaving 50,000 shares, the present issue, available for providing working capital.

The following contract has been entered into:—
An Agreement dated the 30th day of August, 1895, between The Mines Contract Company, Limited, of the one part, and this Company of the other part.

Mr. B. CROWDER, being interested in the sale as one of the Directors of the Vendor Company, will not act as a Director of this Company until after the completion of the purchase.

THE METAL MARKETS.

LONDON METAL MARKET.

THE METAL MARKET, LONDON, AUGUST 30.

Copper.

IN the weak moments of the speculative market, American buyers came to the rescue, with the result that we had firmness again. On Friday the realisations of an outside holder somewhat flattened the tone, but in the afternoon there was again American aid, and a slight reaction for the better. The American market seems scarcely so firm, and European consumers are a little more chary of buying, and, as a consequence, refined coppers also close a little below the best. Statistics for the second half of the month, however, are expected to be favourable. The day-to-day fluctuations in G.M.B.'s were as follows:—Monday opened firm and higher, £47 16s. 3d. three months being touched. Tuesday closed flat at about 7s. 6d. decline. Wednesday saw a recovery to £47 7s. 6d. s.c., and £47 16s. three months. Thursday was 2s. 6d. to 3s. 9d. easier, and on Friday £46 17s. 6d. cash, and £47 3s. 9d. three months were done, the closing tendency being rather sensitive and undecided at £46 17s. 6d. s.c., and £47 5s. three months.

Tin

There has been an absence of support from the more powerful quarters and values, after a little advance, have tended lower notwithstanding that shipments for the month seem to have been over-estimated by 500 tons or so. The week opened at £65 2s. 6d. s.c., improved 5s. on Monday, and a little more on Tuesday. Wednesday was steady. On Thursday a little ground was lost, and Friday's market closed rather dull at £64 15s. s.c. and £65 2s. 6d. three months, rather sellers. The Dutch market opened at 39½ fl. s.c. and 39½ fl. s.c. three months; improved ½ on Tuesday and Wednesday, reverted to Monday's price on Thursday, and lost ½ on Friday, the market closing quiet at 39½ fl. s.c.; 39½ fl. three months for Billiton. Banca at the close is 39½ fl.

Pig Iron.

Shipments last week, 6660 tons, against 2447 tons for same period last year. All the speculative markets have been busy, and have seen a steady advance, and this is most marked in the case of hematite. Closing quotations are:—Scotch, 47s. 2½d. s.c., 47s. 4½d. a month buyers, with sellers at 4½d. and 1d. more respectively. Middlesbrough, 38s. 4d. to 38s. 5½d. s.c.; 38s. 6d. to 38s. 7½d. a month. Hematite, 48s. 1½d. to 48s. 2½d. s.c.; 48s. 4d. to 48s. 5d. a month. Stocks in each case, however, have been added to.

Lead.

A good consumptive demand has again sprung up, and no considerable quantities seem to be offered. The quotation is £11 for soft foreign (at which very little is to be had), and £11 2s. 6d. to £11 5s. for English.

Spelter

has been steady, but hangs fire at the moment, and quotations are just a shade easier at £15 5s. to £15 6s. 3d. for ordinary, and 2s. 6d. to 5s. more for specials.

Antimony.

A quiet market, with not much doing. Quotation is £31 10s.

Quicksilver

shows no change. First-hands £7 5s., seconds £7 3s. 6d.

The following are to-night's (August 30) prices of metals:—

Copper.		# s. d.	# s. d.
Tough cake and ingot	...	50 15 0	51 5 0
Best selected	...	51 10 0	52 0 0
Electrolytic Copper	...	...	55 5 0
Sheets and sheathing	...	...	57 0 0
Flat bottoms	...	...	60 0 0
Chill bars	...	...	...
Good merchantable, spot, and 3 months respectively	...	46 17 5	47 5 0
Copper tubes, seamless	...	...	0 0 7½
Alloys.		...	...
BRASS: Wire	...	...	0 0 5½
" Tubes (solid drawn)	...	...	0 0 6½
" Sheets	...	...	0 0 6½
PHOSPHOR BRONZE: Alloys H.	...	...	78 0 0
" III. or	...	...	81 0 0
" VII.	...	...	83 0 0
" XI.	...	...	82 0 0
" Vulcan brand Al	...	...	72 0 0
DURUM METAL	...	...	73 0 0
BULL'S METAL	...	...	65 0 0
Ferrobronze (Vivian's).		...	...
Ingots	...	0 0 5½	...
Ordinary sheets, plates, bolts and bars	...	0 0 6½	...
Screw bolts and nuts	...	0 0 8	...
Pump rods, plain	...	0 0 7	...
" finished	...	0 0 10	...
DRUM METAL: No. 4 (per ton)	...	...	...
" Sheets and plates (per lb.)	...	...	...
" Bars, round, square, flat (per lb.)	...	...	...
" hexagon (per lb.)	...	...	...
Tin.		...	...
English, ingots, f.o.b.	...	68 0 0	68 10 0
" bars	...	69 0 0	69 10 0
" refined	...	70 0 0	70 10 0
Strips, spot, and 3 months respectively	...	64 15 0	65 2 0
Australian spot, and three months respectively	...	65 2 0	66 5 0
Banco (in Holland)	...	68 2 0	68 5 0
TIN PLATES: Charcoal, best quality	...	0 14 0	0 16 0
" ordinary	...	0 12 0	0 13 0
" Coke, best quality	...	0 10 3	0 10 6
" ordinary	...	0 9 0	0 9 3
These prices of tinplates are f.o.b. at Swansea; at Liverpool 6d. per box more.	...	...	...
Iron.		...	...
Fig. G.M.B., f.o.b. Clyde, spot	...	...	2 7 0
" Scotch pig, No. 1 Gartherris	...	...	2 11 0
" Coltness	...	...	2 13 0
" Clyde	...	...	2 9 0
" Govan	...	...	2 7 0
Bars, Welsh, f.o.b. Wales	...	...	4 18 0
Plates	...	...	8 3 0
Bars, Staffordshire, at works	...	...	5 2 0
Sheets	...	...	8 15 0
Plates	...	...	8 16 0
Hoops	...	...	5 18 0
Ship plates, Middlesbrough	...	...	4 17 0
STEEL: English spring	...	6 0 0	10 0 0
" cast	...	35 0 0	60 0 0
" Rails at works, according to section	...	3 15 0	4 10 0
Lead.		...	...
Spanish or soft foreign	...	10 17 6	11 0 0
English pig, common	...	11 2 6	11 5 0
" L.B.	...	...	12 2 0
" sheet	...	...	12 3 0
" bar lead	...	...	12 3 0
" pipe	...	...	12 12 0
" red	...	...	13 17 6
" white	...	...	16 15 0
" patent shot	...	...	14 17 6
Spelter.		...	...
Silesian ordinary brands	...	15 5 0	15 8 0
" special brands	...	15 7 6	15 10 0
English Swansea	...	18 0 0	18 2 0
Sheet Zinc	...	18 5 0	18 10 0
Antimony.		...	...
Antimony	...	31 10 0	...
Quicksilver.		...	...
Flasks, 75 lbs. warrants	...	7 3 6	7 5 0
Ore, C.I.F., U.K. ports	...	...	...
1st quality, 50 per cent. and upwards	...	0 0 10	0 0 11
2nd " 47 per cent. to 50 per cent.	...	0 0 9	0 0 10
3rd " 40 " 47 per cent.	...	0 0 7½	0 0 8
Aluminium.		...	...
98-99½ per cent. (guaranteed 98 per cent. min.) in ingots (1 cwt. lots)	...	0 1 7	0 1 7
" do " do " do " (1 ton lots)	...	0 1 6	0 1 6
Nickel.		...	...
8-99 per cent. guarantee	...	0 1 2	0 1 3

JACKSON GOLD FIELDS.—The news from the mines owned by the Jackson Gold Fields Company continues to be most satisfactory. The development work is being pushed forward on the rich gold reef which has been struck at the 75 feet level. The 60 stamp mill already on the property is ready to crush the ore, and as soon as the cablegram announcing the first crushing is received the market is expected by those in the inner circle of the company to assume a much more favourable aspect.

"THE MINING JOURNAL" SHARE LIST.

ABBREVIATIONS AND REFERENCES.—The following are the significations of the abbreviations and references which occur in the Share List:—A, Antimony; Ar, Arsenic; B, Blende; Br, Borax; C, Copper; D, Diamond; G, Gold; L, Lead; M, Manganese; N, Nitrates; P, Phosphates; Q, Quicksilver; R, Ruby; S, Silver; Sd, Silver-lead; Sul, Sulphur; T, Tin; and Z, Zinc. * In the "Amount of Share" column of British Mines signifies that the mine is conducted on "Cost Book" principles; † in the "Head Office" column of African Mines signifies that the address given is not that of the head office, but of a sub, or transfer office; and ‡, following the names of African Mines, signifies that they are subject to the Limited Liability Law of the South African Republic.

* The following is by far the most complete and comprehensive list of mines, in whose shares business is being currently transacted, published. Additions will be made from time to time as occasion requires. Every effort is made to ensure accuracy, and Secretaries of Companies, Share Dealers, and our readers generally, are cordially invited to co-operate with us to this end, by notifying us of any errors that may at any time occur. We desire it to be understood that, while our Share List will almost invariably be found correct, we do not hold ourselves responsible for any loss or inconvenience that may arise from possible inaccuracies.

BRITISH MINES.

Name	Closing Price, Aug. 30, 1895	Closing Price, Aug. 23, 1895	Am't. of Share	Latest Dividend	Called up per Share	Amount of Stock or No. of Shares Issued	Situation of Mine	Head Office
Blue Hills .....CT	2/ 4/	7/- 8/-	2	2/- May '91	5 19 5	5,353	Cornwall	Camborne.
Botalack .....T	3/ 3/	2 2 3/4	2	2/6 Dec. '93	35 15 10	1,880	Cornwall	St. Just.
Corn Brea .....T	2 3/4	2 3/4	2	2/6 Dec. '93	22 8 5	6,000	Cornwall	Corn Brea.
Cook's Kitchen .....T	3/ 3/	2 2 3/4	2	2/6 Dec. '93	35 15 10	4,900	Cornwall	Camborne.
Devon Gwanton CA	par 1/4 pm.	par 1/4 pm.	1 0	—	0 12 6	25,000	Tavistock	8, Finsbury circus.
Devon Gwanton CA	1 1/4 1 1/4	2 3/4 30/-	5 0	1/6 May '95	2 0 0	10,240	Devon	8, Finsbury circus.
Dolcoath .....T	19/6 20/8	18/- 19/-	1 0	—	1 0 0	—	Cornwall	Camborne.
Do. ....T	1/ 2/3	1/6 1/4 pm	1 0	—	part paid	—	Cornwall	Camborne.
Drakeville CTM	2/ 2/3	2/- 2/6	5/	—	0 2 0	61,858	Cornwall	Dashwood House.
East Halkyn .....T	20/- 25/-	20/ 25/	1 0	—	0 12 6	12,000	Flintshire	67, Lord St., Liverpl.
East Halkyn .....AI	3 3/4 4	4 4 3/4	1 0	1/6 Sept. '94	0 9 9	6,400	Cornwall	Illogan.
Gawton .....CA	1 2	1 2	2 10	—	2 7 3	12,000	Devon	20, Great St. Helena.
Great Laxey .....L	1 1/8	1 1/8	4 0	5/- Apr. '92	4 0 0	15,000	I. of Man	Douglas, Isle of Man.
Green Hurth .....L	1 1/8	1 1/8	1 0	—/6 June '99	0 19 0	3,000	Cornwall	Omering.
Halkyn .....L	9 10	9 10	1 0	2/- June '95	1 0 0	10,000	Flintshire	Chester.
Do. Dr. M. Dr. L.	10 11	10 11	10 0	5/- Aug. '95	10 0 0	10,000	Flintshire	Corn Ex. Cmb. Chester.
Isle of Man .....L	3 3/4 4 1/4	3 3/4 4 1/4	5 0	2/- — '95	5 0 0	11,000	I. of Man	Chester.
Killfretth .....T	10/ 12/	12/ 13/	—	1/6 Nov. '94	5 11 6	8,000	Cornwall	Truro.
Leadhills .....L	3 1/4 1 1/4	3 1/4 1 1/4	0 0	3/- Sep. '92	8 0 0	20,000	Lanarksh.	30, Finsbury-circus.
Llanarmon .....L	par	par	1 0	—	0 15 0	21,980	Denbigh	8, Werburgh Chmbrs
Llanarmon .....L	par	par	1 0	—	0 15 0	2,700	Flintshire	Chester.
Levant .....T	5 5 1/4	5 5 1/4	—	4/- Nov. '94	11 8 8	2,500	Cornwall	Pentance.
Lovell .....T	—	—	—	1/3 Nov. '91	1 16 7	7,165	Wendron	3, St. Queen-st., S.W.
Miners .....L	—	—	5 0	5/8 Mar. '90	6 0 0	9,000	Denbigh	Miners, N. Wales.
Newthdall L.L.Z	3/6	3/6	1 0	8 Feb. '91	0 18 0	42,875	Stthubid	Newcastle-on-Tyne.
Newthdall L.L.Z	—	—	1 0	—	10 18 3	4,920	Cornwall	Camborne.
Newthdall L.L.Z	—	—	1 0	—	1 0 0	30,000	N. Wales	6, Queen-street-place.
North Hendre .....L	—	—	2 10	1 p. year 81	2 10 0	11,854	Flintshire	11, Nwgt. st., Chstr.
Pare .....L	—	—	1 0	—	1 0 0	5,000	Llanarmon	Blitler st. building.
Poncia United L.C	1/6 2/-	1/6 2/-	—	1/- Mar. '90	7 4 8	10,800	Cornwall	Liskeard.
Poncia United L.C	3 1/4	16/ 17/	—	—	3 7 9	18,000	Cornwall	37, Walbrook.
Rhosmor .....T	par	par	1 0	10 p. Sept. '91	1 0 0	1,070	Flintshire	Corn Ex. Cmb. Chester.
Rhosmor .....T	par	par	1 0	—	0 19 0	18,000	Flintshire	Corn Ex. Cmb. Chester.
So. Condurrow T.C	2/ 3/	2/6 7/8	—	3/6 Apr. '93	7 7 7	6,123	Cornwall	20, Great St. Helena.
South Crofty T.A	3 1/4	16/ 17/	—	—	17 10 6	5,789	Cornwall	Pool, Cornwall.
S. Frances United T.A	1 1/4	3 1/4	—	—	2 7 6	6,000	Cornwall	Redruth.
South Halkyn .....L	par	par	1 0	—	1 0 0	10,000	Flintshire	8, Werburgh Chmbrs
South Halkyn .....L	par	par	1 0	—	0 7 0	30,003	Flintshire	8, Werburgh Chmbrs
Talcor .....T	par	par	1 0	—	0 15 0	23,000	Flintshire	84, Fargate st., Chstr.
Tincroft .....T	8 3/4 8 3/4	8 3/4 8 3/4	—	2/- Aug. '94	15 7 6	6,000	Cornwall	Carn Brea.
Westdale .....T	8/9	8/9	4 0	1/3 Oct. '90	1 10 0	60,000	Durham	3, Lombard-court.
West Frances .....T	1 1 1/4	1 1 1/4	—	2/6 May '89	17 1 7	8,144	Cornwall	Camborne.
West Kitty .....T	4 5 1/4	5 5 1/4	—	2/- Dec. '94	1 2 0	6,000	Cornwall	37, Walbrook.
Wheel Agar T.A	3 1/4	3 1/4	—	2/8 Aug. '88	23 15 2	6,000	Cornwall	Redruth.
Wheel Bassett T.C	2 3/4 2 3/4	2 3/4 2 3/4	—	10/- Apr. '88	12 3 0	6,144	Cornwall	Redruth.
Wheel Friendly T	1 1/4 1 1/4	1 1/4 1 1/4	—	—	0 12 9	10,000	Cornwall	110, Cannon-st., E.O.
Wheel Granite T	1 1/4 1 1/4	1 1/4 1 1/4	—	3/- July '88	18 2 0	6,000	Cornwall	Truro.
Wheel Kitty T.T	3 1/4	3 1/4	—	3/- Mar. '88	4 5 6	10,784	Cornwall	14, Broad-street.
Wheel Metal T.T	3 1/4	3 1/4	—	—	0 13 9	10,784	Cornwall	14, Broad-street.

EUROPEAN MINES.

Alamillos .....L	3 1/4 3 1/4	3 1/4 3 1/4	2 0	—/8 April '95	2 0 0	35,000	Spain	8, Queen-street-place
Arava .....L	0 3/4	0 3/4	1 0	1/- May '93	1 0 0	61,884	Servia	4, Tokenho. Bldgs.
Consett Ore .....L	5 5 1/4	5 5 1/4	1 0	5/- July '94	1 0 0	65,200	Spain	19, Gray-st., N'castle
English Cr. Spelter	3 1/4 3 1/4	3 1/4 3 1/4	1 0	2 3/4 Aug. '94	1 0 0	84,000	Lombardy	9, Queen-street-place
Fortuna .....L	1 1 1/4	7 1 1/4	2 0	1/- April '95	8 0 0	25,000	Spain	6, Queen-street-place
Libiola .....C	3 3/4 4	3 3/4 4	5 0	4/6 Apr. '95	5 0 0	60,400	Italy	Dashwood Ho., E.O.
Linares .....L	4 1/2 5	4 1/2 4 1/2	3 0	4/6 April '95	3 0 0	14,998	Spain	6, Queen-street-place
Mason & Barry C	2 3/4 3 1/4	2 3/4 3 1/4	5 0	2/- May '94	5 0 0	185,172	Portugal	87, Cannon-street.
Pontarens .....G	8/ 7/	8/ 7/	3 0	—	30 0 0	67,508	Italy	6-7, Queen-street-pl.
Pontgibaud .....SL	—	—	20 0	11/8 Dec. '94	20 0 0	14,000	Coueron	6-7, Queen-street-pl.
Rio Tinto .....C	17 1/2 18 1/4	17 1/2 18 1/4	10 0	5 1/2 July '95	10 0 0	325,000	Spain	30, St. Swithin's-lane
Do. (Mort. Bonds)	—	—	100 0	5 1/2 July '95	100 0 0	2,189,740	Spain	30, St. Swithin's-lane
Do. (2nd do.)	—	—	100 0	5 1/2 July '95	100 0 0	2,102,850	Spain	30, St. Swithin's-lane
Do. (3rd do.)	—	—	100 0	5 p.c. Apr. '93	100 0 0	655,780	Spain	30, St. Swithin's-lane
Ripanj .....SL	2/6 3/8	2/6 3/8	1 0	—	0 19 0	95,000	Servia	120, Bishopgate-st. Wn]
Tharsis .....C Sul	5 1/2 5 1/2	5 1/2 5 1/2	2 0	4/- May '95	2 0 0	625,000	Spain	Glasgow.
West Prus. Pref	—	—	10 0	8 1/2 July '95	10 0 0	365	Germany	Walbrook Ho., E.O.
West Prussian Fre.	—	—	10 0	8 1/2 July '95	10 0 0	14,050	Germany	Walbrook Ho., E.O.
Wohlfahrt .....L	—	—	10 0	3 1/2 Dec. '94	1 0 0	99,834	Prussia	17, Victoria-st., S.W.
Wohlfahrt .....L	—	—	1 0	3 1/2 Dec. '94	0 10 0	9,690	Prussia	17, Victoria-st., S.W.

NORTH AMERICAN MINES.

Alaska Mexican G	1 1/4 1 1/4	1 1/4 1 1/4	95	7 1/2-50 July '95	85	160,000	Alaska	30, St. Swithin's-lane
Alaska Treadwell G	4 1/2 4 1/2	4 1/2 4 1/2	225	1/8 July '95	825	200,000	Alaska	30, St. Swithin's-lane
Almas and Treadwell	4 1/2 4 1/2	4 1/2 4 1/2	225	1/8 July '95	825	200,000	Alaska	30, St. Swithin's-lane
American Belle S	1 1/3 1 1/3	1 1/3 1 1/3	1 0	—/8 Mar. '91	1 0 0	351,008	Mexico	6, Queen-street-place
Anglo Mexican S	63/3 63/3	61/- 61/-	5 0	1/- July '90	5 0 0	398,890	Colorado	25A, Old Broad-street
Arizona (Pref.) G	107	107	100 0	6 1/2 May '95	100 0 0	158,920	Colorado	23, College Hill
Do. 5 1/4 Deben.	99	99	100 0	7 1/2 May '95	100 0 0	213,300	Arizona	74, Geo.-st., Edinbor
Do. 7 1/2 Deben.	—	—	100 0	—	100 0 0	213,300	Arizona	74, Geo.-st., Edinbor
De Lamar .....GS	1 1/4 1 1/4	21/8 22/8	1 0	1/- Aug. '95	1 0 0	400,000	Idaho	6, Drapers-gardens.
Dickens Custer GS	2/ 2/6	2/3 2/9	1 0	—	0 19 9	420,000	Idaho	Winchester Ho. E.O.
Elkhorn .....S	5/9 6/2	5/- 6/-	1 0	—/3 July '95	1 0 0	175,007	Montana	6, Drapers-gardens.
Emma .....S	1/- 1/3	1/- 1/3	5/	—	0 5 0	400,818	Utah	15, Geo.-st. Mann. Ho
Gen. M'g. Assoc.	6 1/2 7	6 1/2 7	5 10	14/- Apr. '95	5 10 0	27,469	C. Briton	Blomfield House
Golden Feather G	3 1/4 3 1/4	3 1/4 3 1/4	1 0	—	1 0 0	180,000	California	St. Stephens Ca E.O.
Golden Gate .....G	5/8 4/8	3 1/4 3 1/4	1 0	—	0 19 6	79,600	California	St. Stephens Ca E.O.
Golden Leaf .....G	3/- 3/5	2/- 3/8	1 0	—	1 0 0	300,259	Montana	8, Drapers G. Gardens.
Harquahala .....G	3/6 4/3	2/9 3/3	1 0	—/8 Oct. '94	1 0 0	300,000	Arizona	6, Drapers G. Gardens.
Holcomb Valley G	3/- 3/8	2/9 3/8	5/	—	0 5 0	540,500	California	14, Cornhill, E.O.
Jackson Goldfields	2/ 2/6	2/3 2/9	5 0	—	0 5 0	408,638	California	11, Poultry, E.O.
Jay Hawk (New) G	1/- 2/-	1/- 2/-	1 0	—/6 Dec. '92	0 19 3	285,000	Montana	Drashwood House.
La Plata .....GS	2/9 3/3	2/3 2/9	5 0	1/3 Oct. '92	0 4 8	405,000	Colorado	11, Poultry, E.O.
La Yaca .....S	2/9 3/3	2/3 2/9	5 0	—	0 19 0	200,000	Mexico	20, Bucklersbury, E.O.
Mammoth Gold ...	1/- 1/8	1/- 1/8	1 0	—	1 0 0	400,000	Calif. Ariz.	257, Winchester Ho.
Meq. d' Oro (P) G	—	—	1 0	—	1 0 0	18,000	Mexico	Dashwood Ho., E.O.
Meq. d' Oro (D) G	—	—	1 0	—	1 0 0	18,000	Mexico	Dashwood Ho., E.O.
Montana .....GS	9/8 10/8	10/8 11/8	5 0	—/3 July '95	5 19 0	657,158	Montana	Gresham House, E.O.
New Colorado S	—	—	1 0	—	0 19 8	34,503	Colorado	8, Geo. Ho., E'ohesp
N. Gold Hill .....G	2/5 2/	2/8 3/1	1 0	—	0 19 9	191,045	N. Carolina	15, George-st., E.O.
New Guston .....S	3 1/4 3 1/4	3 1/4 3 1/4	1 0	1/- Oct. '92	1 0 0	110,000	California	25A, Old Broad-street
New Hoover Hill G	—/8 1/-	—/8 1/-	10/-	—/8 Dec. '95	0 19 0	120,000	N. Carolina	Langthorne Ho., E.O.
Palmarejo .....GS	2 3/3 3/3	2 3/3 3/3	1 0	—	1 0 0	418,888	Mexico	4, Cophthal-building
Pinos Altos (D) G	3 1/4 3 1/4	3 1/4 3 1/4	1 0	—/8 Mar. '90	1 0 0	100,000	Mexico	110, Cannon-street.
Do. 15 1/2 Cam Pref	1 1/4 1 1/4	1 1/4 1 1/4	1 0	—	1 0 0	80,000	Mexico	110, Cannon-street.
Richmond .....GSL	1 1/4 1 1/4	1 1/4 1 1/4	5 0	1/- Nov. '94	5 0 0	84,000	Nevada	44, Coleman-street.
Sierra Butte .....G	1 1/4 1 1/4	1 1/4 1 1/4	5 0	—/8 Apr. '95	2 0 0	122,500	California	138, Leadenhall-st.
Do. Plumas Eur. G	1 1/4 1 1/4	1 1/4 1 1/4	5 0	—/8 Apr. '95	2 0 0	140,285	California	138, Leadenhall-st.
Springdale .....G	2/- 3/-	1 1/4 1 1/4	5 0	—	81	1,000,000	Colorado	20, Abchurch Lane.
Twih Lake Placers	1 1/4 1 1/4	1 1/4 1 1/4	1 0	—/8 Feb. '96	1 0 0	88,000	Colorado	A. Lawrence P. H. E.O.

AUSTRALIAN AND NEW ZEALAND MINES.

Name	Closing Price, Aug. 30, 1895	Closing Price, Aug. 23, 1895	Am't. of Share	Latest Dividend	Called up per Share	Amount of Stock or No. of Shares Issued	Situation of Mine	Head Office.
Abbotts .....G	1 1/4 1 1/4	1 1/4 1 1/4	1 0	—	0 17 6	67,000	M'rchison	17, Old Broad st.
Achilles Gold. Fld.	3/8 4/	3/8 4/-	2/8	—	0 2 6	642,456	N. Zealand	Poultry.
Aladdins Lamp G	1 1/4 1 1/4	1 1/4 1 1/4	1 0	—/8 July '95	1 0 0	100,000	N. S. Wales	4-5, Throg. Avenue.
Anglo-Ger. Explor.	1 1/4 1 1/4	1 1/4 1 1/4	1 0	—	1 0 0	99,000	N. S. Wales	79, Queen Street.
Asso. Gold Mines	1 1/4 1 1/4	1 1/4 1 1/4	1 0	—	1 0 0	375,000	Queensland	20, Bucklersbury
Austrian .....G	3 1/4 3 1/4	3 1/4 3 1/4	1 0	—	1 0 0	66,000	Murchison	23, College hill, E.O.
Australasian .....G	4 1/2 5/	4 1/2 5/	1 0	—/8 Mar. '92	1 0 0	210,000	Queensland	6, Queen-st. place
Australian .....G	2/9 3/3	3/ 3/8	1 0	—/9 Aug. '95	7 6 8	18,315	N. S. Wales	15, Old Jewry Chmbrs
Aus. Bro. Hill Con.	2/9 3/3	3/ 3/8	1 0	1/- June '91	1 0 0	622,708	N. S. Wales	Dashwood House.
Baker's Creek .....G	17/8 20/	17/8 20/	1 0	1/- May '95	0 17 6	100,000	N. S. Wales	H

AFRICAN MINES—(Continued).

Nams.	Closing Price, Aug. 30, 1895	Closing Price, Aug. 23, 1895.	Am't. of Share	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
Ferreira G	18 1/8	18 1/8	1 0	13/ Sept. '95	1 0 0	45,000	Rand	120, Bishopsgt-st. Wn
Forbes Reef (Nw) G	3 3/4	3 3/4	1 0	—	1 0 0	100,000	De Kaap	45-6, Leadenhall-st.
Goldenhuis Deep G	10 1/2	10 1/2	1 0	—	1 0 0	365,000	Transvaal	30, St. Swithin's-lane
Goldenhuis Est. G	5 1/2	5 1/2	1 0	30 1/2 July '95	1 0 0	187,500	Rand	120, Bishopsgt-st. Wn
Do. Main Reef	1 1/4	1 1/4	1 0	5 1/2 Aug. '95	1 0 0	150,000	Rand	Warnford Court, E.O.
George and May G	10 1/2	10 1/2	1 0	—	1 0 0	112,750	Rand	7, Great St. Helen's
George Gonh G	3 1/2	3 1/2	1 0	—	1 0 0	100,000	Johannesburg	120, Bishopsgt-st. Wn
Ginsberg G	2 3/4	2 3/4	1 0	—	1 0 0	130,000	Driefontein	Warnford Court, E.O.
Ginsberg G	4 1/2	4 1/2	1 0	15 po June '95	1 0 0	300,000	Rand	2, Drapers-gardens.
Glencairn G	8 1/2	8 1/2	1 0	—	1 0 0	—	—	11, Queen Victoria-st.
Gold Estates Tst. G	5 1/2	5 1/2	1 0	15 1/2 Dec. '89	0 10 0	130,000	Transvaal	46, Queen Victoria-st.
Gld. Fls. Deep..... G	1 1/2	1 1/2	1 0	—	1 0 0	600,000	S. Africa	8, Old Jewry.
G. P. of Lydenburg	7 1/2	7 1/2	1 0	—	1 0 0	—	Lydenburg	—
G. P. of Mashonid	—	—	1 0	—	1 0 0	200,000	Mashonid	19, St. Swithin's In.
G. P. Terrad Fuego	—	—	1 0	—	1 0 0	400,000	Montembla	14, Throgmorton-st.
Grhamstown G	11 1/3	11 1/3	5/-	1 1/2 Mar. '91.	0 8 0	400,000	Lydenburg	85, Gracechurch-st.
Grassop G	8 1/2	7 1/2	10 0	2 1/2 Sept. '94	10 0 0	105,700	Transvaal	82, Lombard-streets
Gruyland and W. G	15/ 16/	14/ 15/	10/-	—	0 13 0	24,000	Manica	Broad-st. Avenue
Jay Pawkes G	5/ 5/ 6/	5/ 5/ 6/	10 0	—	0 10 0	—	Matabeleid	18, Bishopsgate-st.
Jewelo Explorats.	8/ 9/	8/ 9/	1 0	—	1 0 0	260,000	—	79 1/2, Gracechurch-st.
Harmony (Pref) G	4 1/2	4 1/2	1 0	—	1 0 0	2-0,000	Zoutpaans	85, Gracechurch-st.
Henderson's Trans	7 1/2	7 1/2	1 0	—	1 0 0	100,000	De Kaap	Warnford-court.
Henry Nouras G	—	—	1 0	—	1 0 0	—	—	—
Joane's Reef G	3 1/2	3 1/2	1 0	—	1 0 0	57,404	De Kaap	21, Mincing Lane.
Johannesburg G	6 1/2	7 1/2	1 0	—	1 0 0	99,537	Johannesburg	31, Lombard-st., E.O.
Johannes. Invest	6 1/2	6 1/2	1 0	40 p. Sept. '95	1 0 0	650,930	—	7, Lothbury.
Johannesburg Por	7 1/2	8 1/2	1 0	2 1/2 Nov. '93	1 0 0	21,000	Rand	Johannesburg.
Phileas G	10 1/2	11 1/2	1 0	10 1/2 July '95	1 0 0	30,000	Rand	8, Old Jewry.
Pumpers G	3 1/4	3 1/4	1 0	25 1/2 Aug. '95	1 0 0	100,000	Rand	120, Bishopsgt-st. Wn
Kimberley D	1 1 1/2 pm	1 1 1/2 pm	1 0	—	0 10 0	99,872	Kimberley	19, Finsbury-circus.
Kimberley Rdpst..... D	4 4 1/2	3 1/2 3/4	1 0	—	1 0 0	125,000	Kimberley	2, Drapers-gardens.
Klerksdorp D	25/ 28/	27/ 28/	10/-	—	0 9 0	400,000	Klerksdorp	110, Cannon St.
Kofffontein D	1 1 1/2	1 1 1/2	1 0	—	1 0 0	125,000	Jacobdassal	120, Bishopsgt-st. Wn
Langlaagte Est. G	6 1/2	6 1/2	1 0	15 p.c. June '95	1 0 0	470,000	Rand	59, Holborn Viaduct
Do. Royal	4 1/2	3 1/2	1 0	5 1/2 Sept. '93	1 0 0	100,000	Rand	2, Drapers-gardens.
Langlaagte Est. G	13 1/2	14 1/2	2/6	—	1 0 0	115,900	Lydenburg	85, Gracechurch-st.
London-Berlyn G	13 1/2	13 1/2	10/-	3/- Mar. '95	1 0 0	889,233	Lydenburg	110, Cannon-street
London & S. A. Ex.	6 1/2	7 1/2	1 0	—	1 0 0	100,000	S. Africa	19, Finsbury-circus
Lower Roodepoort	31/ 33/	28/ 29/	1 0	6 1/2 Mar. '90	1 0 0	150,000	Viafontein	8, Old Jewry, E.O.
Lower Roodepoort	31/ 33/	28/ 29/	1 0	6 1/2 Mar. '90	1 0 0	319,000	Rand	Warnford-court.
Malen Reef (New) G	2 1/2	2 1/2	1 0	—	1 0 0	111,400	Rand	15, George St. MnH
Mashon. Agency..... G	3 1/2	3 1/2	1 0	—	1 0 0	100,000	Mashonid	8, Old Jewry, E.O.
Do. Central G	3 1/2	3 1/2	1 0	—	1 0 0	100,000	Mashonid	8, Old Jewry, E.O.
Do. Gold Fields	8 1/2	8 1/2	10/-	—	1 0 0	200,000	Mashonid	19, St. Swithin's In.
Masi Kesi G	5 1/2	5 1/2	1 0	—	1 0 0	110,000	Manica	Broad Street Avenue
Matabeleid G. H.	3 1/2	3 1/2	1 0	10 p. Apr. '95	1 0 0	238,500	Matabeleid	3, Cophall-buildings
Metropoliten (M) G	2 1/2	2 1/2	1 0	—	1 0 0	100,000	Rand	4, Lothbury.
Meयर & Chari..... G	7 1/2	7 1/2	1 0	26 1/2 June, '95	1 0 0	75,020	Rand	Oronby Square.
Kiddleburg Coal..... G	7 1/2	7 1/2	1 0	—	1 0 0	71,687	Rand	120, Bishopsgt-st. Wn
Kinserva G	15 1/2	15 1/2	1 0	—	1 0 0	150,000	Rand	4, Drapers-gardens.
Koderfontein..... G	15 1/2	15 1/2	1 0	—	1 0 0	200,000	Rand	Warnford-court.
Kontrose G	2 1/2	2 1/2	1 0	3/- Feb. '90	1 0 0	70,000	De Kaap	45, New Broad-street
Koodies G.&E..... G	1 1/2	1 1/2	1 0	-4 May '90	1 0 0	240,000	De Kaap	8, Old Jewry.
Kosambique G	2 1/2	2 1/2	1 0	—	1 0 0	400,000	S. E. Africa	Broad-Street House.
Kemaqua C	1 1/2	1 1/2	8 0	2/6 July '91	8 0 0	94,331	Namaqualand	34, Leadenhall-bids.
Ken Africa..... C	1 1/2	1 1/2	1 0	—	1 0 0	190,000	Rand	81, Latham Garden.

AFRICAN MINES.

ew Clewer Estate	4 1/4	4 1/4	4 1/4	1	0	10% Feb. '35	1	0	100,000	Lydenburg	120, Bishopsgt., E.C.
Comet	4 3/4	4 3/4	—	1	0	—	1	0	175,000	Heidelberg	Wincchester-house
ew Croesus	3 1/2	3 1/2	3 1/2	1	0	5 % Aug. '32	1	0	255,000	Langlaagte	120, Bishopsgt., St. Wn
ew Gordon	10 1/2	13 1/8	8/6 9/6	1	0	5 % Dec. '39	1	0	404,344	Grigaliand	110, Cannon-street.
ew Harlot	11 1/4	11 1/4	11 1/4	1	0	15 p c Sept. '95	1	0	89,750	Rand.	28, Gresham Ho E.C.
ew Jagerst.	11 1/4	10 1/4	10 1/4	5	0	10% Mar., '95	1	0	100,000	Transvaal.	5, Cophthal-buildings
Kleinfontein G	5 1/2	5 1/2	5 1/2	5	0	12 1/2 p c Mar., '95	1	0	82,500	Rand.	Wincchester House
ew Louis D'Or.	3 1/2	3/2	3/2	1	0	—	1	0	—	—	11, New Broad-street
Midast	2 3/4	3/2	3/2	1	0	—	1	0	150,000	Mid'le Vlei	120, Bishopsgt.
ew Primrose	7 1/2	8 1/4	7 1/2	1	0	25 p c June '95	1	0	272,750	Rand.	2, Draper's-gardens.
ew Rand	15 1/4	15 1/4	15 1/4	1	0	—	1	0	110,000	Rand.	Bartholomew-house
ew Rietfontein G	10 1/4	10 1/4	10 1/4	1	0	—	1	0	160,000	Rand.	Warford-c., E.C.
ews, Augustine G	18 1/2	16 1/2	13 1/2	1	0	—	0	19 1/2	399,137	Grigali W	30-1, St. Swithin's-st.
ew Spa Bonah.	2 1/2	3 1/2	2 1/2	1	0	—	1	0	115,701	Rand.	24, N. John-st., E.C.
ew Steyn Estate	2 1/2	3/2	2 1/2	1	0	—	1	0	125,000	Heidelberg	19, Bury Street, E.C.
ew Virginia	7 1/2	7 1/2	7 1/2	1	0	—	0	10	45,335	Transvaal	28, Dudgey Row, E.C.
igel	3 1/2	3 1/2	3 1/2	1	0	10 % June '95	1	0	195,000	Heidelberg	8, Old Jewry.
igel Deep	3 1/2	3 1/2	3 1/2	1	0	—	1	0	160,000	Rand.	Basing House, E.C.
igel Extension	8/ 8/	8/ 8/	8/ 8/	10/	0	10 % June '35	0	10	200,000	—	88, London Wall.
orth Sheba	8/ 7/	8/ 7/	8/ 7/	1	0	—	1	0	—	Rand.	120, Bishopsgt., St. Wn.
ourse Deep	8/ 8/	8/ 8/	8/ 8/	1	0	—	1	0	275,000	Transvaal	4, Sun Court, E.C.
oana	3 1/4	4	3 1/4	1	0	25% - Nov. '29	1	0	328,000	Transvaal	4, Sun Court, E.C.
oana Developm	3 1/4	1 1/4	1 1/4	1	0	—	0	18	111,857	E. C. Africa	31, Lombard-street.
phir C.E.	4 1/4	4 1/4	4 1/4	1	0	10 % Aug. '95	1	0	50,000	Grand F.S.B.	10, Milford-street.
phir F.S.B.	4 1/4	4 1/4	4 1/4	1	0	10 % July, '95	1	0	30,000	Rand.	4, Old Jewry.
ricton	3 1/2	4 1/2	4 1/2	1	0	—	1	0	437,488	Kimberley	120, Cannon-st., E.C.
tto's Kopje	3 1/2	4 1/2	6/3 6/9	1	0	—	1	0	—	Transvaal	120, Bishopsgt., St. Wn.
ari Central	2 1/2	2 1/2	1 1/2	1	0	—	1	0	136,750	Transvaal	S.E. Africa
ari's Mozamb	2 1/2	2 1/2	2 1/2	10/	0	1/ - Jan. 95	0	10	13,000	Rand.	Broad St. Avenue.
ari's Range	10/8	11/5	11/5	10/	0	—	0	17 1/2	200,000	Manica	Broad St. Avenue.
iggs Peak	3 1/2	3 1/2	3 1/2	1	0	—	0	17 1/2	200,000	Swaind.	6, Queen-street-place
iggs Peak	3 1/2	3 1/2	3 1/2	1	0	—	0	17 1/2	200,000	Swaind.	6, Queen-street-place
Islands	1 1/2	1 1/2	1 1/2	1	0	—	1	0	140,000	Black Reef	19, Bury-st., E.C.
otchefstroom	1 1/2	1 1/2	1 1/2	1	0	—	1	0	189,750	Potchefstroom	17, Basinghall Street
resident Land	7/ 8/	10/ 11/	10/ 11/	1	0	—	1	0	199,325	Transvaal	33, Cornhill, E.C.
rincesse Estate	4 1/4	4 1/4	4 1/4	1	0	—	1	0	125,000	Rand.	—

and Central Ore fontaine.....G	2½	2½	2½	2½	1 0	25 p Aug. '95	1 0 0	115,500	—	15, Geo. St., Mn. Ho.
and Mines.....G	3½	4½	3½	3½	1 0	—	1 0 0	7,000,000	Rand.....	95, Holborn Viaduct.
and Rhodesia.....G	2½	2½	3½	3½	1 0	—	1 0 0	332,728	Rand.....	122, Bishopsgt. St. W.]
and Drift.....G	2½	4½	1½	8½	1 0	10 p.c. July '95	1 0 0	25,000	Rh Rhodesia	123, Bishopsgt. St. W.]
and Rhodesia Expln.....G	18	18½	4½	4½	1 0	—	1 0 0	27,000	Transvaal	19, Finsbury circus.
and Robinson.....D	4	4½	10½	17½	1 0	—	1 0 0	50,030	Mt & Mash'	8, Old Jewry.
and Robinson.....G	11	11½	3½	3½	1 0	—	1 0 0	350,000	Kaal Valley	8, Prince's-street.
and Robinson Randfont.	4½	5	10½	10½	5 0	6 p.c. July '95	6 0 0	550,000	M. Rf. Rand	20, Austin Friars, E.O.
and Robinson Deep	1½	2½	1½	2½	1 0	—	1 0 0	517,000	Rand.....	8, Prince's-street.
and Robinson (Kim.)	4½	5	4½	4½	1 0	—	1 0 0	170,000	Rand.....	8, Old Jewry, E.O.
and Robinson Un. G	3½	4	3½	3½	1 0	—	1 0 0	100,000	Rand.....	7, Lombury, E.O.
and Robinson Deep	7½	8	7½	7½	1 0	25% Aug., '95	1 0 0	130,000	Rand.....	Worndon-court, f
and Robinson Tw/Hs	7½	7½	6½	6½	1 0	—	1 0 0	300,000	M. Rf. Rand	30-31, S. with's lane
and Robinson	7½	7½	6½	6½	1 0	—	1 0 0	60,000	Krugersd	4, Tokenhouse bldg.
and Robinson	1½	1½	18/20	18/20	1 0	—	1 0 0	—	—	55, Bishopgate st.
and Robinson	5½	5½	5	5½	1 0	—	1 0 0	91,000	Rand.....	55, Gresham Ho., E.O.
and Robinson	2½	2½	2½	2½	1 0	1/- Sept. '94	1 0 0	850,000	Lydenburg	18, S. Helen's Place.
and Robinson	7½	9½	7½	9½	1 0	—	0 18	119,002	Zoutpab'g	4, Sun Court, E.O.
and Robinson	20½	21	18½	18½	1 0	10% Aug. '95	1 0 0	250,000	Rand.....	8, Old Jewry.
and Robinson	10½	11	9½	9½	1 0	50% June '95	1 0 0	250,003	S. Africa	8, Old Jewry.
and Robinson	6½	6½	6½	6½	1 0	—	1 0 0	120,030	Eia defont	6, Great St. Helen's
and Robinson	15/-	15/-	15/-	15/-	1 0	—	0 15	60,003	J. Gild. W.	19, St. Swithin's-lane.
and Robinson	1½	2	1½	2½	1 0	—	1 0 0	158,000	Rand.....	Winchester House.
and Robinson	1½	2	1½	1½	1 0	—	1 0 0	99,272	Lydenburg	15, Bishopsgt-st. W.
and Robinson	1½	1½	1½	1½	1 0	10 p.c. June, '95	1 0 0	34,000	Rand.....	26, Gresham Ho., E.O.]
and Robinson	12/8	13/8	13/	14/	1 0	—	1 0 0	220,003	Zoutpab'g	Dashwood Ho.
and Robinson	3/9	4/3	3/9	4/3	5/	—	0 5 0	547,378	Barberton.	Cophthal House
and Robinson	1½	2½	2½	2½	1 0	1/- Mar. '95	1 0 0	439,985	Rand.....	Broad-st. House, E.O.
and Robinson	1½	2	1½	1½	1 0	—	1 0 0	285,700	Transvaal	76, Old Broad-st. E.O.]
and Robinson	4	4½	4½	4½	1 0	10% Mar. '95	1 0 0	210,000	Transvaal	31, S. Swithin's-lane.
and Robinson	10½	10½	8½	9½	1 0	1/- Aug. '95	1 0 0	260,000	S. Africa	3, Off. City House.
and Robinson	1½	1½	1½	1½	1 0	—	1 0 0	135,000	S. A. R.	20, Bishopsgt-st. W.]
and Robinson	1½	1½	1½	1½	1 0	—	1 0 0	79,953	Transvaal	33, Cornhill.
and Robinson	1½	1½	1½	1½	1 0	—	0 15 0	169,393	Transvaal	33, Cornhill.
and Robinson	3½	4½	3½	4½	1 0	12½% Sep. '91	1 0 0	60,000	Rand.....	Worndon Court.
and Robinson	8/8	9/8	8/8	9/8	1 0	—	1 0 0	100,432	Manic...	Broad Street House.
and Robinson	1½	1½	1½	1½	1 0	2½ Jan. '94	1 0 0	45,030	Transvaal	110, Cannon-street.
and Robinson	2½	3½	2½	3½	1 0	—	1 0 0	146,000	Rand.....	85, Gresham Ho., E.O.]
and Robinson	1½	1½	1½	1½	1 0	—	1 0 0	75,000	Africa	18, S. Swithin's-lane.
and Robinson	3½	4½	3½	4½	1 0	—	1 0 0	75,000	De Kaap	16, S. Helen's-pl., E.O.
and Robinson	9½	9½	9½	9½	1 0	—	1 0 0	160,000	Rand.....	18, St. Swithin's-lane.
and Robinson	5½	5½	5½	5½	1 0	—	1 0 0	120,003	Rand.....	18, St. Swithin's-lane.
and Robinson	8½	8½	7½	8	1 0	—	1 0 0	177,003	Rand.....	8, Old Jewry.
and Robinson	5½	6	5½	6	1 0	—	1 0 0	150,000	Rand.....	Winchester House.
and Robinson	—	—	—	—	1 0	—	1 0 0	130,000	Gold Coast	117, Cannon-street
and Robinson	1½	1½	1½	1½	1 0	100% Aug. '95	1 0 0	55,000	Rand.....	19, Bury-street, f]
and Robinson	1	1½	1½	1½	1 0	—	1 0 0	242,003	Rand.....	8, Old Jewry.
and Robinson	1	1½	1½	1½	1 0	—	1 0 0	242,003	Rand.....	8, Old Jewry.
and Robinson	1½	1½	1½	1½	1 0	—	1 0 0	700,030	Mashonald	3, Cophthal-bldg.
and Robinson	10½	11	9½	10½	1 0	—	1 0 0	250,000	Rand.....	19, Bury-st., E.O.]
and Robinson	11	11½	9½	10½	1 0	10 p.c. Apr., '94	1 0 0	130,000	Rand.....	Worndon-court, f
and Robinson	7½	1	7½	1	1 0	—	0 18	39,021	Transvaal	1, Blomfield House.
and Robinson	4½	5	4½	5	1 0	18% July '95	1 0 0	90,727	Rand.....	8, Old Jewry, I.
and Robinson	5½	5½	4½	5	1 0	—	1 0 0	85,900	Transvaal	13 George-st., E.O.

THE JOHANNESBURG CONSOLIDATED INVESTMENT COMPANY (LIMITED).

CAPITAL £800,000.

B. J. BARNATO, M.L.A. (Chairman).
HENRY C. BUCKNALL.
WOOLF JOEL.
ISAAC LEWIS.
JOHN PADDON.

SECRETARY.
T. HONEY.

H. S. CALDECOTT.
FRED. ENGLISH.
J. FRIEDLANDER.
S. B. JOEL.

SECRETARY.
J. PITTS.

LONDON BOARD OF DIRECTORS.

EDMUND ESCOMBE (Managing Director).
G. H. BAW.
B. B. TRENCH.
H. L. WALTER.
Sir WILLIAM YOUNG, Bart.

LONDON OFFICES.
7, LOTHBURY, E.C.

JOHANNESBURG BOARD OF DIRECTORS.

CHARLES MARX.
Sir JAMES SIVEWRIGHT, K.C.M.G.
Hon. J. TUDHOPE (General Manager).

JOHANNESBURG OFFICES.
COLONNADE BUILDINGS.

REPORT OF THE DIRECTORS.

The Directors submit herewith their Report and Balance Sheet of the Company for the year ending 30th June, 1895. In November, 1894, a London Directorate was established; and at the same time the Capital of the Company was increased from £350,000 to £800,000 by an issue of 500,000 Shares of £1 each at a premium of 10s. per Share. In February last the Company purchased the entire assets and business of the South African Trust and Finance Company, Limited, and in connection therewith the Capital was further increased to £800,000 by an issue of 132,000 Shares at a premium of £1 10s. per Share. The Capital of the Company is thus £800,000 in 800,000 Shares of £1 each, of which 768,000 Shares are issued and there remains unissued a balance of 12,000 Shares.

By circular issued in November last, the Directors announce that arrangements were in progress for the extinction of Founders' rights to participate equally with the Ordinary Shares in any dividend declared in excess of 20 per cent. per annum. Under this arrangement the Company acquired an option (which it has since exercised) from the holders of 17,000 Shares carrying Founders' rights to extinguish these rights for an allotment of 25,000 fully paid Shares, and they are gratified to report that they have since concluded an arrangement with the holders of the remaining 8,000 Shares carrying Founders' Rights to extinguish these rights on similar terms.

Since the commencement of this year the business of the Company has greatly expanded, and it has become interested in many very profitable, important financial, and mining enterprises.

The Company, by arrangement made in January last with Messrs. Barnato Brothers, acquired from that firm the financial and commercial agencies in London of some of the most important Gold Mining Companies in the Transvaal upon the following advantageous terms, viz.:—That in consideration of an allotment of 10,000 fully-paid Shares of this Company, Messrs. Barnato Brothers have transferred all such agency business as from the 1st day of January last. The capital value of the Shares (£10,000) and the accrued dividend thereon is charged against the profits of the year. These Shares will now be allotted. As illustrating the value of this branch of the Company's business, it may be mentioned that the revenue derived from secretarial and general agency business has amounted to £19,376 15s. 10d., of which amount £11,450 16s. 4d. has been received during the last six months in London alone. Since 30th June further important agencies have been acquired.

The amount to the credit of Profit and Loss, including the balance of £14,573 2s. 5d. brought forward from last year's statement, as shown in the accounts, is £389,029 4s. 10d.

The Directors recommend that the balance to the credit of Profit and Loss be appropriated as follows:—

An interim dividend at the rate of 20 per cent. per annum was paid in December last on 350,000 Shares, which absorbed	£ 35,000 0 0
To payment of a dividend to Shareholders registered on the 31st July, at the rate of 40 per cent per annum on the issued capital of 768,000 Shares	157,400 0 0
To creation of a Reserve Fund	400,000 0 0
Leaving a balance to be carried forward of	396,629 4 10
	£389,029 4 10

The assets of the Company have been carefully valued, and the Directors are of opinion that their estimate of same will be more than realised.

Of the Stocks and Shares in various undertakings held on 30th June, many have since materially appreciated in value. House and Landed Property and Shares in Landed Estates owned by the Company have been valued upon a basis to return 10 per cent. on the Capital value, inclusive of the premises occupied by the Company, and to meet which the property account has been written down to the extent of £15,054 0s. 5d.

The present London Offices of the Company being entirely inadequate to meet the requirements of the Company's business, the Directors have recently purchased a freehold site in Austinfriars, upon which a suitable and commodious building will be erected.

The Directors have also decided to erect, upon one of the Company's most valuable freehold sites in Johannesburg, a large block of buildings, suitable for offices and shops, and on completion the offices of the Company will be transferred thereto.

Mr. G. W. Stair, late Manager of the Primrose Mine, has been appointed Consulting Engineer to the Company, and all mining enterprises with which the Company is associated have been placed under his management and control.

In view of the large amount of Capital required to deal with undertakings which are constantly arising in connection with the development of the Transvaal, the Directors deem it expedient to retain large resources on hand.

The business of the Company since the 30th June continues of a promising nature, and the Directors avail of every opportunity to acquire interests in the further developments taking place in South Africa.

Johannesburg and London, 26th August, 1895.

By order of the Board, THOS. HONEY, Secretary.

JOHANNESBURG CONSOLIDATED INVESTMENT COMPANY, LIMITED.

BALANCE-SHEET, 30th JUNE, 1895.

LIABILITIES.	£ s. d.	ASSETS.	£ s. d.
To Capital Account—	800,000 0 0	By Cash at Bankers and in hand	142,710 5 6
768,000 shares issued at £1 each, fully paid	£768,000	Loans to Mining Companies and on the London and Johannesburg Stock Exchange, repayable at short notice or call (fully secured)	366,430 5 3
12,000 reserve shares (as per contra)	12,000	Sundry Debtors	273,795 8 8
800,000	£800,000	Real Estate, House and Landed Properties and Shares in same	173,308 3 6
To Fixed Deposits	220,939 8 8	By Investment in Mining Properties and Shares, and in Financial, Municipal, Commercial and other undertakings	1,121,901 7 7
Sundry Creditors	127,126 11 11	By Sundry Assets, Machinery, Office Furniture, &c.	5,595 14 11
Profit and Loss—		By Reserve Shares (as per contra)	12,000 0 0
Balance	954,029 4 10		£2,097,095 5 3
	£2,097,095 5 3		

PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDING 30th JUNE, 1895.

	£ s. d.		£ s. d.
To Salaries (including Audit Fees)	7,785 19 8	By Revenue on Real Estate, House and Landed properties	14,053 9 6
To Directors' Fees	1,950 10 8	By Agency, Secretarial and Transfer Fees, Brokerage, Commissions, &c.	19,976 15 10
To Rent, Rates and Taxes	1,947 3 9	By Interest on Loans	63,406 11 9
To Interest on Deposits, Insurance and Exchange	2,013 14 11	By Bad Debt (recovered)	120 0 0
To House and Landed Properties, Machinery, Office Furniture, &c. (written down)	17,440 8 11	By Profits on Mining Properties, Shares in Mining and other Companies and undertakings (the Shares on hand taken at market value of the 30th June, 1895)	594,029 2 8
To Purchase of Agency Business (10,000 Johannesburg Consolidated Investment Shares and Dividend on same)	12,000 0 0		£897,585 13 9
To General expenses, including Printing and Stationery, Advertising Licences, Cables, Postages, Bank Charges, &c.	2,804 18 8		
To Balance carried down	846,899 18 7		
	£890,585 13 9		
To Interim Dividend paid at the rate of 20 per cent. per annum on 350,000 Shares	35,000 0 0	By Balance from Account to 30th June, 1894	14,573 2 5
To Balance carried Balance Sheet	954,029 4 10	By Premium on Shares (less expense of issue)	334,158 3 10
	£890,045 4 10	By Balance brought down	840,899 18 7
			£890,029 4 10

We have audited the Books and Accounts of the Johannesburg Offices of the Company and found them correct.

JOHN MOON, Auditors.
J. MUNRO, Auditors.

We have audited the Accounts of the London Office of the Johannesburg Consolidated Investment Company, Limited, and find them correct, and that they and the Accounts of the Johannesburg Office are properly incorporated in the above Balance-Sheet.

CHATTERIS, NICHOLS, and CO., Auditors.
Chartered Accountants.

London, 18th August, 1895.

HALKYN MINES DRAINAGE COMPANY.—The 41st ordinary general meeting of the shareholders of the Halkyn Mines Drainage Company was held on Wednesday, at Chester. In the absence of the Chairman (the Duke of Westminster), Mr. John Thompson presided over a fair attendance of shareholders. The directors, in their report, stated that the amount brought forward from the last account, after paying the dividend of 5 per cent., &c., was £1148 8s. 3d.; the profit for the half-year under review, after charging the amount of poor rates, &c., was £2120 8s. 10d., and there was available for disposal £3273 8s. 1d. The directors advised the payment of a dividend at the rate of 5 per cent. per annum, which would absorb £1819 5s., leaving £1454 13s. 1d. to be carried forward. The weight of lead ore on which royalty had been paid was 2537 tons, against 2620 tons in the previous half year; blende being 124 tons, against 253 tons. The average prices were £6 11s. 3d. per ton for lead, against £6 9s. 8d. in December, 1894.—The report and statement of accounts were adopted, and a dividend of 5 per cent. per annum for the half-year was declared.

RAILWAY MATERIAL IN EGYPT.—The value of the railway material imported into Egypt last year was £373,920. In this total of railway material English manufacture figured for 32.23 per cent.; Belgian for 28.84 per cent.; French for 27.80 per cent.; Turkish for 9.50 per cent.; German for 1.37 per cent.; and Italian for 0.27 per cent.

ANGLO-FRENCH EXPLORATION COMPANY (LIMITED).—Mr. Frederick Arthur Robinson, of 54, Old Broad-street, E.C., has been elected to a seat on the board of the above company.

THE BEACONFIELD DIAMOND MINES (LIMITED).—The considerable rise which has recently taken place in the shares of the De Beers Diamond Mines is expected by some financial authorities to favourably affect the whole of the diamond market, and already we hear of people who are buying with a view of holding on for the expected rise. A property which has attracted some favourable attention is the Beaconfield Diamond Mines, the total capital of which undertaking is £87,000. The directors have received the following information from the manager of the mines, Kimberley, South Africa:—"Net profits for the four weeks ended August 10, 1895, £4290. This is equal to £55,770 per year, and sufficient to pay a dividend of over 60 per cent. on the total capital." This report augurs favourably for the future of the company.

PARRAL CONSOLIDATED.—An extraordinary general meeting of the Parral Consolidated Gold and Silver Mines (Limited) was held yesterday at Winchester House, Old Broad-street, when resolutions were submitted altering the Articles of Association so as to provide for the issue of share warrants to bearer.

THE MESSAGE OF PEACE is always appreciated and respected by all true men, for many of us hope the time is not far distant when it may be universally adopted by all nations. When this comes to pass, happiness and prosperity will be the rule and not the exception. In the meantime, Holloway's Pills and Ointment have largely helped to make foreign nations understand that Englishmen delight in alleviating pain and suffering. These wonderful remedies have been blessed in many lands for the relief they have afforded and the cures effected. They are specially adapted for all complaints affecting the liver, stomach, and kidneys, and at this season no family should be without a supply.

WOODSTOCK (TRANSVAAL) GOLD MINE, LIMITED, SOUTH AFRICA.

INCORPORATED UNDER THE COMPANIES ACTS, 1862 TO 1890.

CAPITAL, £200,000 IN £1 SHARES,
OF WHICH £70,000 IS AVAILABLE
FOR WORKING CAPITAL.

DIRECTORS.

ADMIRAL FREDERICK A. MAXSE

(Chairman of the Aladdin's Lamp Gold Mining Company, Limited), Chairman.

EDWARD RAWLINGS, Esq.

(Chairman of the Rand Southern Gold Mining Company, Limited).

JAMES MURRAY, Esq., J.P.,
Beechcroft, Stirling.

* CHARLES PRESTON GIBBONS, Esq.,
Assoc. Memb. Inst. C.E., Gravesend.

* H. MAPLEBECK, Esq.,
Of Barberton, Transvaal, Managing Director.

* Will Join the Board after Allotment.

THE PROSPECTUS of the above COMPANY
WILL BE
ISSUED ON MONDAY,
and can be obtained from the

BANKERS.

THE CITY BANK (LIMITED),
Threadneedle Street, London, E.C.

BANQUE PARISIENNE,
7, Rue Chauchat, Paris.

BROKERS.

IN LONDON:
MESSRS. EDWARD B. HASELDEN AND CO.,
27, Throgmorton Street, E.C., and Stock Exchange.

IN MANCHESTER:
MESSRS. STAVEACRE AND WALTON,
17, Haworth Buildings, Cross Street.

IN GLASGOW:
JAMES KIRKWOOD, Esq.,
7, Royal Bank Place.

Or from the

SECRETARY of the COMPANY,
AT THE OFFICES,
2, COPTHALL BUILDINGS, E.C.

REPORTS FROM THE MINES

We find it necessary to announce that, owing to the vast numbers of mines, reports, and items of mining intelligence which reach us invariably very late—up to, and frequently after the time of going to press—it is impossible to guarantee the insertion of all of them in the issues in which, in ordinary course they should appear. We always endeavour, however, to make this important feature as complete as possible, and if the secretaries of mining companies, mining captains, and others would kindly make an effort to let their reports, etc., reach us early on Fridays, when it is not possible to let us have them earlier in the week, their doing so would go far to ensure their insertion, and to promote the completeness of our Mining Intelligence.

BRITISH MINES.

DEVON GREAT CONSOLS.—W. Clemo reports as follows under date August 2:—Watson's engine shaft. In the 172 fathom level east the lode is 4 feet wide, composed of capel, quartz, and a little copper and mundic ores. In the 148 fathom level east the lode is 4 feet wide, producing 9 tons of copper and mundic ores per fathom. The stopes throughout the mines are yielding fair quantities of copper and mundic ores.

LEADHILLS.—W. H. Paul, August 26: Brown's vein. The vein in the 160 fathom level driving north of Jeffrey's shaft is 4 feet wide, composed of spar and stone spotted with lead ore, but not to value. In drift recently started 3½ fathoms above the 160 fathom level south of Wilson's shaft the vein is 4 feet wide, worth 50 cwt. of ore per fathom. In winze sinking below the 145 fathom level north of Jeffrey's shaft the vein is 3½ feet wide, showing a little ore at times. Nos. 3 and 4 stopes above the 145 fathom level north of Jeffrey's shaft are producing 20 and 25 cwt. of ore per fathom. Nos. 1 and 2 stopes above the 115 fathom level north of Jeffrey's shaft are yielding 25 and 30 cwt. of ore per fathom. In the 100 fathom level driving south of Wilson's shaft the vein is 3 feet wide, contains a good mixture of spar, but stone rather dark again. The stopes above the 85 and higher levels south of Wilson's shaft are producing about their usual quantities of ore.—Raik and Highwork veins. The crosscut eastward at the 100 fathom level south of Wilson's shaft is being continued in ground much of the same character as of late. In driving north of this crosscut at said level Raik vein is worth 60 cwt. of lead ore per fathom, and in going south of ditto it yields 25 cwt. of ore per fathom. There is no change worthy of remark elsewhere.

WHEAL FRIENDLY.—The manager, Mr. Charles Cole, has submitted his monthly report as follows: I beg to inform you that the men are making good progress in cutting down the engine shaft. The shaft is now out down 5½ fathoms below the adit level.

WEARDALE LEAD.—Report on Wardale Company's mines for week ending August 24: Groverake. Crosscut from Armstrong's old rise north, sparry vein, but hard, and poor in ore, not to value. Driving Firestone drift west in south part of vein, vein more sparry with a little ore, but scarcely to value. Rising to prove vein fore-end of Adamson's drift, vein 2 feet wide of hard spar, poor in ore, worth 6 cwt. per fathom. Groverake tribute ore returned at 8 bings for the week.—Boltsburn. Stopes in north flats from Watts level worth 40 and 20 cwt. per fathom. Stopes in south flats from Watts level worth 26, 12, 40, 20, and 20 cwt. per fathom. Cross-cutting north from north flat, a mixture of spar, stone, and ore worth 16 cwt. per fathom.—Greenlaws. Nattrass Gill drift, rise in quarry hazel, vein nipped, chiefly rider, and very hard to rise. Watson's drift, vein 2 feet wide composed chiefly of spar, but coarse. Lowe's drift, stopes worth 12 and 16 cwt. per fathom. Race's drift, vein not looking so well, narrow; composed of more donk, some spar, and ore, worth 8 cwt. per fathom. Stope worth 16 cwt. per fathom. Quarry level no change to note. Tribute ore for week returned at four bings.—Sedling. Driving 64 level east in top part of slaty hazel, vein 3 feet wide, of fluor spar and rider, mixed with ore, worth 14 cwt. per fathom. Stopes above 64 level east worth 18, 20, 16, and 16 cwt. per fathom. Above the 56 level the stopes are worth 12 and 12 cwt. per fathom. Driving 64 level west vein in plate, composed chiefly of plate, rider, some spar threads, and a little ore, improves above the drift. Stope in 64 level west worth 14 cwt. per fathom. Ore raised for week 40 tons, ore dressed for week 36 tons, ore and slag smelted for week 72 tons, producing 36 tons of pig lead.

COLONIAL, INDIAN, AND FOREIGN MINES.

BREMNAES.—The following report has been received from the manager, Mr. John Daw, jun., dated Haugesund, August 23: Section 4, 400 feet level. We have been following the lode down since striking the dyke. We find the quartz to be about 15 inches wide, through which a good deal of mineral is scattered. Stones with visible gold have also been found. As this is a very important point, we hope soon to be able to report a further improvement.—300 feet level. A decided improvement has taken place in the winze sinking to communicate with the lower level. The quartz covers one-half of the length of the winze, and is about 10 inches in width. In the rise and stope in back of this level the improvement reported last week is well maintained, and we hope soon to be able to report communication with the winze sunk to the 200 feet level. In the level south the quartz is about 2 feet. Level south as before reported; this level is being driven with a rock-drill, and we are glad to say good progress is being made. There is a slight increase in the width of the quartz, and we appear to be approaching some richer ground. The stope in the back of this level north is producing some good quartz, but the lode is small. Other points show no alteration. We have not had time to weekly essay.—Section 5. The two points attacked show no alteration. The quartz is narrow, but it is good; and were it possible to keep it separate from the deads, would mill an ounce to the ton.—Lower workings. We have now completed the erection of the boiler and pump with connection, and have laid a main from the reservoir, and began on Wednesday to drain the mine. As we have no plan of these workings it is impossible for us to say when the mine will be drained, but we do not think it will take longer than from three to four weeks. Judging from the surface results we feel very confident as to the future of this property. The prospectors have found some very coarse gold by panning this week from the surface outcropping of the lode about 100 feet south of main shaft. On section 4 some stones rich in gold were broken in the presence of the Chairman. At this point a shaft has been sunk, which we think is sufficiently deep to allow us to commence at once to drive north to communicate with the workings on section 4. The prospects in this direction are certainly very encouraging. During the Chairman's visit we have crushed from section 4 35 tons of quartz, obtained chiefly from the levels, with results 18½ ounces, or 10½ dwts. to the ton. This shows that there is a general improvement in the quality of the quartz, and had it not been necessary to clean up in the presence of the Chairman we should have crushed a few more tons from this section as well as the quartz from section 5. The Chairman brings with him the gold obtained from the late crushings, as well as from the pannings and other points.

HENDERSON AND FORBES.—The following is an extract from a letter recently received from Mr. Forbes:—"I have been prospecting on this property for over two weeks now, with a strong party, and found one reef that averages 15 dwts. per ton, but it is only 1 foot wide where we found it, but probably by following it up it may be wider in other places."

ALBION (TRANSVAAL).—Extract from letter, dated August 2, received from the general manager at the mines at Barberton.—Barber's Reef: Work is going on here now very satisfactorily. I was all over the property on the 30th instant, all through the old works as far as I could get; there are two distinct reefs on the property, and the low level drive I am putting in is on the Lucknow claims. I shall start the other low level drive as soon as possible. I intend also to put in a short crosscut half-way up the hill, to cut the reef just under the old works. Half-way up the hill on the Lucknow claims the reef is simply a quarry, measuring about 22 feet wide from the two low level drives I am going on with. The backs they will open up are almost beyond calculation, as the reefs vary from 6 feet to 20 feet wide. Intermittent cross leaders also go all over the ground. When this property is working I would suggest a crosscut from boundary to boundary, right across the formation, and I dare venture to say that the whole of the hill is gold bearing. I hope next mail the two low levels will be going, so for the sake of reference I will call them Nos. 1 and 2 respectively. The No. 1 level as at present driving has gone poorer, it carries no free gold, and assays 12 dwts. 3 grains per ton. I took a panning from the old working which gave about 7 dwts. of free gold; the low level No. 2 is on this reef.

BRILLIANT BLOCK.—Mine manager's report for the fortnight ending July 10:—Under the shaft. Deepened 10 feet, total 93 feet below No. 7 plat, reef small on west side, but on the east it is 2 feet thick, worth (say) 15 dwts. No. 7 level west driven 9 feet, total length 86 feet, reef small and poor, stopes 2 feet, 7 to 10 dwts. No. 7 level east driven 18 feet, total length 253 feet, reef in face 4 feet, 14 to 16 dwts., stopes 6 inches to 4 feet, quality 15 to 20 dwts. No. 6 level west stopes (three), reef 1 to 3 feet thick, 10 to 20 dwts. No. 6 level east reef in stopes 3 to 6 feet, quality 17 to 27 dwts. No. 5 level east main reef one stope reef 2 feet, 17 or 18 dwts. No. 4 level west two stopes, reef 2 feet (say) 10 dwts.; flat reef four stopes, reef 6 inches to 1½ feet, 25 dwts.

DE LAMAR.—Copy of Captain J. W. Plummer's monthly report for July: Mining, ore breaking department. Hamilton vein, above 3rd level. Average width of vein 2 feet 6 inches, assaying \$23.05 in gold and \$1.25 in silver, equals \$24.30 per ton.—77 feet vein, above 4th level, intermediate stope. Average width of vein 3 feet 6 inches, assaying \$20.15 in gold and \$1.75 in silver, equals \$21.95 per ton.—77 feet vein, 4th level. Average width of vein 3 feet 9 inches, assaying \$30 in gold and \$2.67 in silver, equals \$32.67 per ton.—77 feet vein, 5th level. Average width of vein 1 foot 10 inches, assaying \$16 in gold and \$1.50 in silver, equals \$17.50 per ton.—77 feet vein, 6th level. Average width of vein 4 feet 3 inches, assaying \$17 in gold and \$3 in silver, equals \$20 per ton.—77 feet vein, 7th level. Average width of vein 5 feet 7 inches, assaying \$13.60 in gold and \$9 in silver, equals \$22.60 per ton.—77 feet vein, 8th level. Average width of vein 4 feet, assaying \$13.75 in gold and \$7.50 in silver, equals \$21.25 per ton.—77 feet vein, 9th level, east stope. Average width of vein 4 feet, assaying \$20 in gold and \$16.75 in silver, equals \$36.75 per ton.—No. 5 vein, 6th level. Average width of vein 2 feet, assaying \$24.75 in gold and \$1.62 in silver, equals \$26.37 per ton.—No. 6 vein, 8th level. Average width of vein 2 feet 10 inches, assaying \$29 in gold and \$1 in silver, equals \$30 per ton.—No. 6 vein, 10th level. Average width of vein 2 feet, assaying \$20 in gold and \$2 in silver, equals \$22 per ton.—No. 7 vein, 7th level. Average width of vein 2 feet 6 inches, assaying \$24.50 in gold and \$1 in silver, equals \$25.50 per ton.—No. 7 vein, 8th level. Average width of vein 2 feet 6 inches, assaying \$18 in gold and 50 cents in silver, equals \$18.50 per ton.—No. 9 vein, 7th level. Average width of vein 4 feet, assaying \$24 in gold and \$5.25 in silver, equals \$29.25 per ton.—No. 9 vein, 8th level. Average width of vein 2 feet, assaying \$20.75 in gold and \$1.25 in silver, equals \$22 per ton.—No. 9 vein, 9th level. Average width of vein 3 feet, assaying \$26 in gold and \$4.75 in silver, equals \$30.75 per ton.—No. 9 vein, 10th level. Average width of vein 2 feet 6 inches, assaying \$20 in gold and \$2 in silver, equals \$22 per ton.—Prospecting department. 77 feet vein, 4th level west. Reported length 186 feet, advanced for the month 68 feet 6 inches, total length 254 feet 6 inches. The vein has averaged 2 feet in width, assaying \$20 in gold and \$1 in silver, equals \$21 per ton. During the month the ground became soft, requiring care in removing it. It is our intention to run a crosscut north from the face of the level towards the surface. This will afford a convenient thoroughfare and be of service as a ventilating medium. 77 feet vein, 9th level, east crosscut from face. This crosscut was driven south to intersect any branches that might have left the main line of veins. It was driven 59 feet without developing anything, and was suspended.—77 feet vein, 9th level, on footwall branch. Reported length 154 feet, advanced for the month 30 feet, total length 184 feet. During the beginning of the month the vein averaged 2 feet wide, assaying \$16 in gold and \$5 in silver, equals \$21 per ton. It gradually became narrower and less in value, and was suspended. A crosscut driven from the 10th level has intersected the same branch, which is about 1 foot 6 inches wide, assaying \$40 in gold and \$5 in silver, equals \$45 per ton.—77 feet vein, 10th level east. Reported length 635 feet 6 inches, advanced for the month 27 feet 3 inches, total length 662 feet 9 inches. There is no change to report in the appearance or value of the vein.—No. 5 vein, 5th level west. This has been advanced for the month 27 feet. The average width of the vein is 5 feet 8 inches, assaying \$25.25 in gold and \$2.60 in silver, equals \$27.85 per ton.—Miscellaneous work. Reef crosscut advanced for the month 19 feet. The ground has been hard and tough.—North crosscut, 6th level. This crosscut was commenced from the sixth station, incline shaft, and was driven for the purpose of intersecting the Hamilton vein. Total length of the crosscut, 42 feet.—Hamilton vein, 6th level. A level has been driven on this vein for 34 feet. Some sections of it showed fair ore; the general average is rather low.—Raise from 6th level to 5th level, on Hamilton vein. This raise is 24 feet high. It is being carried up on the vein.—Crosscut 77 feet vein, 8th level. This is 12 feet long, driven through a horse of porphyry, separating two branches of ore.—Summerville group. Reported length of main tunnel, 333 feet; advance for the month, 20 feet. There is no change to report.—Milling department. The milling operations for the month were of their usual regular character. The clean-up and general repairs, instead of taking place on the 1st of the month, were deferred until after the 4th.

NEW CHIMES.—Details of July working: Tons milled 4013, stamps working 40, number of days mill ran 29½, yield from plates 1810 ounces of gold, tailings treated by cyanide 2850 tons, yield of bullion from cyanide works 338 ounces, about 40 tons concentrates, assaying 4 ounces 18 dwts. to the ton.

DON PEDRO GOLD.—Mine manager's monthly report: August 1. Maquiné. Considering the difficulty we have passed through in sinking, I am pleased to inform you that we have sunk for the month 2 fathoms, making a total distance under the 60 of 67 feet, or 11 fathoms 1 foot.—Crosscut 70 horizon. I have now started a crosscut at this point, to be driven direct to a line of gold, which has gone in the 60 north.—Stopping operations. These have been carried on very extensively, the output being over 1000 tons, which if it had been of reasonable quality, would have given over 4000 citavas, but instead of this the produce is very low.—60 horizon. At this place we started to drive south. The lode here is rich, but the ground is very troublesome for driving. For the month driven 1 fathom 1 foot. The drive north has been advanced 1 fathom 3 feet in lode of rather low quality, being also very wet.—Hilko's level. From the horizontal drive we have sunk during the month 4 fathoms. In this distance some very rich work has been met with, and, on the whole, it pays well to extract. From the incline sunk we have started to drive horizontally under the old eastern drive, where we know we have good paying mineral to extract. Driven for the month 3 fathoms.—Morro de Santa Anna. The drive No. 1 has been extended 1 fathom 5 feet in a rich-looking lode, thickly mixed with pyrites. The lode now carried is about 6 feet thick, with lode still standing below tramway.

TOLIMA.—The directors have received advices by the mail of August 24 from their mines, of which the following is an abstract:—Frias, June estimated returns (120 tons) silver, valued at 33d. per ounce (fine), £5242 0s. 4d.; Frias, June cost, £3447 6s.; Frias, June profit, £1794 15s. 4d. The underground agent reports 101 fathoms 5 feet of ground expended, of which 74 fathoms 5 feet 9 inches were productive, leaving 26 fathoms 5 feet 3 inches of unproductive ground. The superintendent, writing under date of the 16th ult., explains that the reason why the June profit appears less by nearly £200 than was estimated in his cable advices of the 4th ult., is that the cost turned out to be higher than usual, as certain rather expensive repairs to and improvements in the surface machinery had to be included in the cost-sheet for that month. Meanwhile, he draws attention to the fact that the grade of the mineral is improving, the average of the June invoice exceeding 350 ounces to the ton. He adds that the 120 east winze No. 2 continues in a productive run of ground below the 130 fathom level, and that the 110 fathom levels east and west on the north branch continue very regular in yield of mineral and that the exploratory works at that point are opening out good reserves.—Underground report. Engine shaft was sunk 6 feet during a part of the month at \$255 per fathom thus giving 30 feet as total depth on line of shaft below the sole of the 140 fathom level, and the branch of the main lode that it is in contact with continues to yield some good portions of high grade mineral. 150 fathom west end was driven upon the hanging wall part of the lode 22 feet, by four men, at \$80 per fathom, and it yielded 1 ton of mineral per fathom. 150 fathom west end footwall side of lode was driven 12 feet, on company account, and yielded 1½ ton of mineral per fathom. It will be seen from the above that the aggregate yield of the lode averaged 2½ tons of mineral per fathom, and that the mineral, as proven, was stronger in the roof than in the sole of the level. 150 fathom east end was driven 26 feet by four men at \$70 per fathom, and the lode only yielded slight bits of mineral here and there. 140 fathom west end north branch was driven 7 feet, by two men at \$85 per fathom, and the lode continues poor. 140 fathom east end was driven 23½ feet by four men at \$80 per fathom, thus being 312 feet as total east of the west winze, and the lode is yet poor. 140 fathom east back stope No. 1 was stoped 40½ feet by four men at \$49 per fathom, and yielded 4 tons of mineral per fathom. 140 fathom east back stope No. 1a was stoped 25 feet by four men at \$42 per fathom, and yielded 4 tons of mineral per fathom. 130 fathom west end was driven 17½ feet by two men at \$68 per fathom, thus being 489½ feet as total west of the west winze, and the lode yet remains poor. 130 fathom west back stope No. 1 was stoped 35½ feet by two men at \$25 per fathom, and yielded 1½ ton of mineral per fathom. 130 fathom west back stope No. 2 was stoped 47½ feet by four men at \$35 per fathom, and yielded 3 tons of mineral per fathom. 130 fathom east back stope No. 2 was stoped 25 feet by three men at \$50 per fathom, and yielded 1½ ton of mineral per fathom. 130 fathom east end from 120 east winze No. 2 was driven 22½ feet by four men at \$70 per fathom, and the lode only yielded bits of mineral here and there, and the forebrest remains poor. 120 fathom west back stope No. 1 was stoped 21½ feet by four men at \$40 per fathom, and yielded 2 tons of mineral per fathom. 120 fathom west back stope No. 3 was stoped 30 feet by four men at \$30 per fathom, and yielded 15 cwt. of mineral per fathom. 120 fathom east back stope No. 1 was stoped 32½ feet by two men at \$25 per fathom, and yielded 1 ton of mineral per fathom. 110 fathom east end was driven 16 feet by two men at \$70 per fathom, thus being 920½ feet as total east of the engine shaft, and the lode remains poor. 110 fathom east bottom stope was stoped 24 feet by two men at \$25 per fathom; that yielded 10 cwt. of mineral per fathom, and it is now finished. 110 fathom east end north branch was driven 13 feet by two men at \$70 per fathom, and it yielded 14 cwt. of good grade mineral per fathom. 110 fathom west end north branch was driven 11 feet by two men at \$65 per fathom, and it has continued to yield 1½ ton of mineral per fathom. 110 fathom west back stope No. 2 was stoped 26 feet by two men at \$25 per fathom, and it yielded 3 tons of mineral per fathom. 90 fathom east end was driven 15 feet by two men at \$60 per fathom, thus giving 1095½ feet as total east of engine shaft, and the lode yet continues poor. 90 fathom east bottom stope No. 2 is situated from the west end of the 90 east winze, and was stoped 58 feet by two men at \$30 per fathom, and it yielded 15 cwt. of mineral per fathom. 80 fathom level east stope was stoped 25½ feet by two men at \$25 per fathom, that yielded 10 cwt. of mineral per fathom, and it is now finished. Shallow adit was driven 23½ feet by four men and a boring machine at \$70 per fathom, thus being 300 feet as total west of the crosscut, and the lode remains unchanged. West end from new crosscut was driven 4½ feet by two men at \$85 per fathom, and it yet continues in hard and poor bar of ground.—Real de Frias, 35 fathom west end north branch was driven 26½ feet by four men at \$55 per fathom, and the lode remains poor. 35 fathom east end was driven 21½ feet by four men and a boring machine at \$80 per fathom, and the lode continues tight and poor.

YERRAKONDA.—Fortnightly report of Captain M. Scantlebury, dated August 6:—Beresford's shaft. This shaft has been sunk 9 feet 6 inches, now 78 feet 9 inches below the 300 feet level. The lode is 7 feet wide, composed of quartz and iron pyrites, and worth 4 dwts. of gold to the ton. 300 feet level north has been extended 18 feet 6 inches, now 138 feet from shaft. The lode is 2 feet 6 inches wide, composed of quartz and iron pyrites, assaying 3 dwts. 6 grains of gold to the ton. New engine shaft has been sunk 2 feet, now 218 feet from surface. During the past fortnight the men have been engaged taking up the water at the 200 feet level, and casing and dividing the shaft. Better progress will now be made in sinking. South shaft has been sunk 4 feet, now 140 feet from surface. The lode is 4 feet wide, showing good walls. The quartz is 1 foot 9 inches wide, and worth 4 dwts. gold to the ton. The rock is very hard for hand-labour.—Prospect shaft south. This has been sunk 24 feet, now 36 feet from surface. We appear to be underneath the ancient workings. The quartz seen is 4 feet wide, and of a very hard nature. From six samples taken the average value is 5½ dwts. of gold to the ton. We can hardly say much about this until we have followed down the quartz a few feet.—Health. I am pleased to say the health of the camp is good.

WENTWORTH EXTENSION.—Report dated July 20 states that the main shaft Carroll No. 2 has been sunk 13 feet, total depth 82 feet. Formation continues blocky diorite with small veins of quartz.

RAND GOLD.—Mr. Pegler, the resident engineer, writes as follows, August 5:—The Rand Gold Mining Company's claim. I visited this property yesterday, and can fully confirm my previous opinion as to its value. The claims number 46, and practically carry the Battery and Violet reef throughout. Taking the reef at 2 feet 6 inches in thickness, and estimated at 12,500 tons per claim of 400 feet by 160 feet (3 feet about 15,000 tons), to which must be added the extra amount due to dip of reef in your boundaries, a result of 700,000 tons available ore is obtained. A 25 mill stamp, crushing 4 tons per head per diem, equalling 100 tons per diem, and 300 days per year would treat 30,000 tons, and give life to the mine for over 23 years. At the very least the profit per ton on yield should be 12s. 6d., equal to an annual profit of £18,750. It is certain the depths of other leaders exist here to which a future value must be attached. Your working capital is ample, and I should advise development before deciding on erection of mill. It may turn out the ore can be treated by the dry process, which would largely increase your profits, and render the outlay of capital considerably less in the erection of the necessary crushing and cyaniding plant. It may be advisable to cut a bore-hole down to or sink a vertical shaft on the property. In the latter case it should be put down at a central point to cut the reef half-way down in its dip, and an incline shaft down to the boundary, and an uprise incline to the surface. In fact, there is no obstruction to the economical working of these claims. The surface ground is suitable for the erection of the plant and disposition of the tailings.

CARATAL MINING.—The directors have heard by last mail that their superintendent at Venezuela, while erecting the cyanide plant, had taken the opportunity of utilising the mill (which he found in workable order) by entering into profitable contracts for crushing the ore of neighbouring mines, and that he had 80 head of stamps at work.

CUMBERLAND.—The manager, Mr. Anthony Gallagher, reports as follows:—Herewith I beg to submit my report for month of June: No. 5 level north. This level is now driven 425 feet. At a distance of 472 feet north of No. 2 shaft the reef of 6 inches widened out suddenly to 3 feet 6 inches in the face, with 6 inches of a dip on the hanging-wall, carrying some mineral, the reef apparently increasing in size going down. After a few feet more had been driven, however, horses of granite split through the reef, reducing the width of pure reef to about 3 feet. Every foot then driven proved the unsettled character of the reef, although there appeared to be a large body of ore going down. At present there is a foot of reef showing in the face, which assays 3 ounces to the ton. It is my intention on the completion of the present contract for driving to raise from 20 to 30 tons of ore by underhand stoping on the reef for a trial crushing, with a view to proving the quality of reef, and the prospect of it making down. If the result should prove favourable I will then drive No. 6 level further north, and sink a winze from this point to No. 6 level. Should there prove to be a payable ore body the ground will then be open for stoping—No. 4 intermediate level north. This level is now driven 172 feet. The reef mentioned in my last report has narrowed down to a mere thread. I have abandoned further driving here. It is my intention to work up from this level to the point from which the trial crushing was taken last year, yielding 4 ounces 8½ dwts. to the ton. The reef must either be running very flat to the north or must have pinched out since we have not met with it in this level. I shall probably put crosscuts in the foot and hanging walls should we fail to find the continuation of the reef.—The stopes. There have been eight men working in the stopes above No. 4 level north. The reef has been very variable in size and quality. At times really good-looking ore was obtained, but owing to a granite horse running through the reef a large quantity of mollock was necessarily sent to the surface with the quartz, as it could not be separated. Although the ore treated in June gave a poor return I cannot cease following up the reef, as it is apparently improving in quality, and from present indications might at any time develop into a considerable body of ore. During the month the men working in these stopes broke through into the old No. 1, North Company's shaft. A large quantity of water was tapped, but as I was prepared for such an event no damage was sustained. The timber in said shaft having fallen about two years ago, a considerable quantity of debris blocks the shaft about 250 feet from the surface, and above where we are now working. I hope to succeed in moving this and clearing out the shaft, after which the ventilation in the mine north of No. 2 shaft will be vastly improved, in fact we shall then be able to work our ground a great distance further north by connecting the lower levels with winzes to catch the upcast through said old shaft. At the bottom of said old shaft we find there is a level driven about 200 feet to the north, but until the shaft is secured and the level cleaned up, I cannot give any further particulars. Eight men have been stoping between Nos. 2 and 3 levels south. I knew there used to be some good ore under No. 3 level, but to get to this I was compelled to pass through poor stone, which was treated in the battery last month. I expected to strike good ore earlier, but I am pleased to say that the reef is now improving as we rise towards No. 3 level, and anticipate a more favourable yield in July.—No. 2 level north. There are two men working above this level with a view to prospecting the block of ground between No. 2 shaft and the old No. 1 north shaft, rising up towards the surface. About 10 inches of ore is now showing on the footwall.

COLOMBIAN HYDRAULIC.—Advises to hand respecting this mine state as follows:—The monitor is at work now in what was known as the Pipe-clay Mine. At the same time clearings are being made for an opening on the Sudio side, and one on the Aguas Claras side, for the gravel which could not be worked either from Clarke's banks or from La Mesa openings. I may now say, although this portion of the mine looks well, I do not hold out much hope of a profit during the present run. We stopped a week to put the new measuring box in the Medina ditch, and, besides this, there have been annoying delays, which are always liable on beginning a new opening. I propose to clean up about August 20, and even if we have a loss there is no cause for alarm.—T. P. Sharman.

HAMPTON PLAINS EXPLORATION.—The directors have received advices by mail from their agents in West Australia, Messrs. Bewick, Moreing and Co., stating that they had appointed Mr. Demole, a qualified surveyor, who had recently been the manager of a mine, and for many years previously in the Victorian Government service as surveyor and railway engineer, to devote himself exclusively to mining work on the Hampton Plains. Under date of July 13 Mr. Demole reports as follows from Coolgardie:—In accordance with instructions I have established a mining camp on Block 45 on the Hampton Plains Estate about the centre of the block. About this part of the block there is a perfect wealth of reefs and what I deem of equal importance, some well-defined ironstone lode caps continuing with strong outcrops for some considerable distance, and I am in great hope of being successful in our quest for payable reef. One nice specimen of gold-bearing stone was obtained near the 2 mile peg south boundary of Block 45; shall follow up the clue closely. I have also set four men prospecting on Block 48, and am going there to-morrow, and from thence to Block 45. Everything, so far, seems satisfactory in connection with the prospecting work. Messrs. Bewick, Moreing, and Company add: "We have eight or nine men on Block 45, and three men on Block 48. These men are thoroughly equipped for systematic prospecting, and we trust that in a few weeks time some valuable claims will be pegged out."

MALMANI GOLD SYNDICATE.—Ottoshoop, S.A.R., August 4:—General report of work done on the farm and mynpatch Doornplaat West, No. 99, from April 18 to date. The farm is situated on the Malmani gold fields, in the Marico district, S.A.R. Extensive trenching has been carried on to the south of main shaft measuring 822 feet, to an average depth of 15 feet, 1700 tons quartz being extracted to date. From the trenches north of main shaft, which measure 320 feet in length, with an average depth of 16 feet, we have 700 tons quartz at grass.—Underground work: Main shaft No. 1, 6 feet by 9 feet. Depth 50 feet, well timbered for main work (i.e., pumping and hauling gear). Have driven to north 75 feet, extracting 150 tons quartz. Sank a sump in this shaft to supply the 10 stamp battery and works with water; this shaft will also be used to drain the mine.—Prospecting shaft No. 1, 5 feet by 6 feet. Connected by drive (at 40 feet level) 155 feet long to main shaft, and having east west drives measuring 142 feet, with winze 15 feet deep, with drive to east 53 feet, from which we have extracted 120 tons quartz.—Prospecting shaft No. 2, 5 feet by 6 feet, 24 feet deep, driving along reef to south 31 feet. 42 tons quartz to grass. Total of quartz at grass 2713 tons. The quartz has been assayed and panned, and I have no hesitation in saying that over the plates the return will be from 15 dwts. to 1 ounce, and from the tailings treated by cyanide process from 10 to 12 dwts. will be recovered, and for this purpose I recommend the immediate erection of cyanide plant.—Battery, &c. A 10 stamp Hornsby battery has been erected on the mynpatch 135 feet from the main shaft on a good solid foundation, and is in thorough working order. A 25 horse-power Robey engine with boiler has also been erected to work the battery and pump, the foundation costing a considerable sum, being entirely composed of block stone and Portland cement to a depth of 10 feet.—Wood. This property is well wooded, and for the first two or three years the syndicate will not be put to the expense of buying fuel. Up to the present 86 cords of wood have been cut, and delivered at the battery at a cost of 7s. per cord.—Labour. The mine at present employs 62 Kaffirs, their wages averaging from 20s. to 50s. per month, the underground boys only getting 50s. per month. The syndicate supplies food to all Kaffir employees. The general health on the mine is exceedingly good. The white staff at present consists of the following:—One manager, assistant manager, secretary, one fitter, one mining carpenter, one general carpenter, one engine driver, one mason, three overseers. We are at present only work-

ing on the main reef, but there are two leaders running parallel with it, from which very successful panning have been taken.—Carl Brauer, director and manager.

MYSORE WEST AND MYSORE WYNAAD.—Tank Block: The mining manager (Mr. P. Bosworth-Smith) reports by mail for the month of July as follows: South shaft. A hopper has been cut at 450 crosscut from shaft. The rock broke in long slabs along the hanging-wall necessitating cutting the hopper from above, and consequent loss of time. 450 level north drive has been carried to 274 feet 6 inches from crosscut to shaft, making a progress of 64 feet for the month. In the beginning of the month the lode was in places 7 feet wide, and worth 15 dwts. per ton; it then went back to 4 feet wide and 8 dwts. value, after which a head came in and out it down to 6 inches in width. The end has now opened out again to 2 feet 6 inches of quartz, worth 8 dwts. per ton. 450 north rise was wrongly reported last month as 11 feet 3 inches, instead of 16 feet 9 inches. This was carried up and holed to the 400 level on 26th inst. at a distance of 51 feet 6 inches, progress 34 feet 9 inches. The quartz just on holing assayed 10 dwts. per ton. Intermediate level north drive was carried 56 feet from rise, progress 37 feet. The lode is 2½ feet wide, and worth 1 ounce per ton. Intermediate level south drive carried to 70 feet, and stopped on boundary quartz 7 feet wide, and worth 8 dwts. per ton. South intermediate rise carried up 44 feet 6 inches, progress 44 feet 6 inches. As we expected from the 400 south the quartz has given out. 400 stopes we have started stoping at the top of rise from 450, the quartz is at present 1 foot wide, and worth 11 dwts. per ton. Nondyrog has holed at our 450 south and intermediate south, consequently our ventilation is much improved. The mill ran 584 hours, crushed 400 tons of quartz, and yielded 306 ounces of bar gold. The short run was due to cams slipping. We stopped on the 29th to take out cam shaft and key up cams with new keys. Plans of the 10 extra heads of stamps have arrived, and the excavations and foundations will be started shortly.

MOUNT ZEEHAN (Tas.).—Manager reports for week ended July 6: Silver Queen section, No. 8 lode, main shaft, sunk 3 feet; total below No. 1 level 41 feet. No. 1 level north extended by tributary 8 feet, total from the No. 2 crosscut 80 feet. Lode has improved. For the whole distance driven by tributary, 78 feet 6 inches, it will average 1 foot of first-class ore. Stopped 3 tons 5 dwts. first, assaying 69 per cent lead and 87 ounces silver per ton.—Queen Extended section, G. tributary. Tunnel driven 140 feet; lode better than ever, and showing 2 feet of solid galena of a rich character. Winze about midway in tunnel has been sunk to a depth of 25 feet. Lode carries 1 foot of first-class ore. Concentrator has been run 61 hours and crushed 187 tons seconds, principally for tributary.

MOSMAN.—Mine manager's report for fortnight ending July 6: North Australian. Byerley level north, four stopes, reef averages 4 inches, medium quality. Byerley level south, four stopes. In one the reef is 15 inches, good quality. In the other 6 inches. Underhand stopes, leader 3 or 4 inches, good quality.—Peabody. Underlie shaft, depth from surface 195 feet. In stripping the last 20 feet to widen out, several leaders of good-looking mineralised stone were met with.—Wyndham. 14 level north driven 13 feet, total length 153 feet. Reef 6 inches, poor. Formation good size, and encouraging. 13 level north driven 20 feet, total length 383 feet. Reef 8 inches, poor, in good formation. Eighth level south, reef 4 to 15 inches, good quality.—Underlie shaft. Have again started to sink. Shaft at present in slide, progress slow.

MOUNT LYELL.—Copy of mine manager's report for week ending July 10: Surface prospecting shaft, hanging-wall. Very little sinking has been done this week; the men have been engaged in cutting into the pyrites so as to allow of the skids being put in. This work was necessitated by the change in dip of the pyrites.—No. 1 crosscut north drive, No. 3 tunnel. The crosscut has been driven 2 feet, total 22 feet; there is no change.—No. 2 crosscut north drive, No. 3 tunnel. The crosscut has been driven 18 inches, total 16 feet 6 inches. The pyrites are intensely hard but improving in value.—South drive, No. 3 tunnel. The face has been advanced 6 feet, total 385 feet; country hard.—North drive, Indicator winze, 6 feet has been driven, total 41 feet; there is no change to report.—North drive, No. 4 tunnel. The contractors have driven 4 feet, total 179 feet; ground slightly easier.—South drive, No. 4 tunnel. The drive has been advanced 6 feet, total 171 feet; country hard ironstone.—No. 2 winze, No. 1 crosscut, south drive, 50 feet level engine shaft. The windlass has been fixed and the winze sunk 3 feet, total 12 feet. The sinking is in copper pyrites; the auriferous schist vein continues.—Stopes over north drive, 50 feet level, engine shaft. Some prospecting is being done here southerly; next the pyrites there is a soft vein of oxidised ore carrying gold and silver.—Engine shaft, No. 4 tunnel. The shaft has been sunk 7 feet, total 135 feet. We should hole through to the No. 5 tunnel in the coming week.—Progress report for week ending July 10: Haulage line. Bank engine in active progress, ready for steam connections and brake gear. Will commence grading to level of No. 4 tunnel in a few days. Smelter site completed and ready for masons on retaining wall. Smelting siding in full progress.—Converter site. Excavation commenced.—Brick plant. New boiler in position and bed logs of engine placed. Plant running full time. Sawmill plant running full time on smelter timber.—Lime kiln. Quarry opening up well. Kila running well.—High pressure reservoir. Sheathing finished.

MILLS' DAY DAWN UNITED.—Mine manager's report for the fortnight ending July 1: Underlie shaft sunk 5 feet, 112 feet below 9 level plat. Timbering for No. 10 plat. 9 level west, hanging-wall, driven 12 feet, total 272 feet. Reef 24 feet in the face, improvement during past few days. Crosscourse level driven 10 feet, total from main level 34 feet. 18 inches good quality. Stopes at back average 2 feet heavy mineral stone to the winze, and from winze 2 feet medium quality. 8 level west driven 8 feet, total 119 feet 9 inches on hanging-wall, good quality, and 1 foot on footwall. 8 level east driven 12 feet, total 46 feet. Reef 5 feet, heavy mineral stone. Stoping on 18 inches fair quality. Improving both in size and quality going east. 6a stopes average 6 feet good quality stone. 6 level east, stopes average 5 feet heavy mineral stone. 6 level west, stopes average 4 feet, fair quality. 5 level west, boundary stopes 18 inches, very heavy mineral stone.—5 footwall level. To top of rise from end of level reef 1 to 5 feet heavy mineral stone. 3 level east sinking on 18 inches of medium quality stone dipping east.

NEW LONDON ESTATES.—Extract from manager's reports dated August 17: Ross shaft. We have sunk during the past week 5 feet 3 inches, making the total depth to date 116 feet 5 inches. The ground is very considerably harder, the slates being more laminated, and therefore harder to break. The vein of quartz before reported continues to hold down through the shaft at about the same dip, the gold therein being, if anything, more regular, but not as yet in paying quantities; the indications, however, are very encouraging, inasmuch as it is only at depth we have found any gold in the veins. The 9 inch pump now works in the most satisfactory manner, the wear on the bucket being very slight. I have lowered into the shaft the 6 by 4 by 6 Worthington pump to run only when we have to stop the Cornish pump to change buckets or clacks, to enable us to keep the water in fork and thus save time. Heretofore when we had to stop for either of the before-mentioned causes, it took from two to three hours to lower the water before the miners could again start work; as I now have it we lose little or no time.

PAHANG CORPORATION.—The manager, Mr. T. H. Bath, reports under date of June 3: Since taking over charge of the mines here the adit level east has been driven 27 feet, total from crosscut 253 feet. The lode here will average 3 feet in thickness of fair quality, but is very dirty, being heavily charged with copper, arsenic, and other minerals. The level west has been advanced another 31 feet, total 169 feet. The country passed through was a hungry grey conglomerate. There is no lode much in the face, but I expect it to make as there is a good lode in the winze about 100 feet ahead. No. 1 level above the level east from this adit has been driven a further distance of 35 feet, total from crosscut 228 feet. The lode will average 3 feet of poor quality stone. The country passed through was a mixture of grey and black slates. We have had an improvement this last week, and driven through some fair tin to-day and yesterday. The A winze east has been connected with

the adit level, and has been sunk 37 feet, total 74 feet. The B winze west has been sunk 21 feet, total 37 feet through slate country. There is a little tin showing in the bottom, and the lode will average 3 feet in thickness.—Stoping. Started a party of men stoping above the adit level east. The lode here will average 7 feet of fair quality stone. I find this shoot of tin at present opened up to be 130 feet long in this level. I also started a party of men stoping above the No. 1 level east. The stone in this level is much the same in size and quality as the stopes in the adit level, and we will have the same amount of backs to take out, by this you will see we have backs to a height of 140 feet by 130 feet in length.—Shaft. I would advise to start and sink the shaft at once, with 20 good coolies. I would be able to sink to a depth of 20 feet, and start crosscutting for the lode, which I could expect to cut about 340 feet from the shaft. This would be done by windlows, and I do not believe we would have much water before tapping the lode; long before that time we could have the small engine from Pollocks erected and working.

—Under date of July 2, Mr. Bath states: Since my last report the adit level east has been driven a further distance of 18 feet, total 269 feet. The country passed through was a hard dark flinty slate on the footwall, and the hanging-wall was composed of a grey conglomerate. The ground has been bad to bore and shoot, and the contractors have made but poor progress. The ore in the face at present is of poor grade, and heavily charged with copper and arsenic. Level west has been advanced another 35 feet, total 206 feet through slate country. The lode here will only average 8 inches in thickness, and is not payable. I expect to cut the winze B in 80 feet more of driving; we had some fair quality ore in the bottom of this winze when I stopped it.—Stopes. The stopes over the back of this level will average 7 feet in thickness, of fair quality ore. The lode is underlying far more in this level than in the level overhead; I am getting the hitches out preparatory to putting the stull timbers. I have started two parties of contractors stoping over the back of this level.—No. 1 level above adit. The drive east has been driven a further distance of 25 feet through a dark slate; the lode will average 2 feet of poor quality ore heavily charged with other minerals. The country has got much harder this last fortnight, total 253 feet. The drive west has been advanced another 13 feet, total 358 feet. As the contractors had finished putting down the winze to meet the level west from adit, I started driving this level to intercept the shoot of tin that had been worked on the surface by former miners. The country passed through was a greywacke and slate, with bands of ironstone and quartz, and is a very likely looking country for tin, still, I have seen no tin since I commenced driving. B winze has been sunk 7 feet, total 64 feet. This will be deep enough to intercept the level west of adit.—Stopes. No. 1 above adit east. We have also started two parties of contractors stoping here, and the lode will average 8 feet of fair quality ore. I think I now have enough men to keep the 20 head of stamps employed night and day.—Shaft. We started a party of men to make preparations for sinking shaft to intercept lode below adit level. Since starting they have excavated 140 cubic yards of earth.—Pump. We shall want a light steam pump to throw the water a height of 100 feet from the shaft; one of a discharge of 4 inches diameter would be quite sufficient for the purpose. As there are so many steam pumps on the market now, each capable of doing the work, I leave you to get whichever you deem best. I have worked Blake's and Egan's pumps; both are suitable for the work.

—Mr. David Jones writes from Sungai Lembing, under date of July 6 as follows: Pollock's. No. 1 below adit. The intermediate stopes in A and B winzes continue to turn out first-class tin ore. The lode in the stopes from A winze is from 3 to 12 feet wide. The lode in B winze stopes is from 4 to 6 feet wide. No. 2 below adit was advanced 42 feet, total 199 feet from crosscourse. I am sorry to say that the lode here is still unproductive, containing spots of copper and blende only. The drive was kept the first part of the month towards the hanging wall, when we cut through to the country rock, and as we did not find anything profitable in that direction the drive was again turned towards the footwall. The lode is from 7 to 8 feet wide. In the intermediate stopes above there is good tin on both walls of the lode. I put men the beginning of this month to crosscut south for a few feet. At 40 to 50 feet back from the face of the drive a rise was started, and we have risen 9 feet. The lode is big, but unproductive, although there is a little formation making on the footwall similar to what is in the lode in the stopes above. I intend this month to start a winze down from the west end of the stopes following the tin, to see where the tin will lead us, and prove whether it is making down. No. 3 below adit was driven 13 feet in the same direction as the month before, and as the small vein we were following was turning too much to the south, I stopped the men and brought them back to a point 9 feet west from where the face of the drive was at May 1, and put them to drive on a small vein on the north side of the drive, and when in only a few feet we came across a very rich patch of tin (of which three sample stones have been forwarded to London), but the tin ground only proved to be 7 to 8 feet in length and 3 to 4 feet wide. The tin made from the middle of the drive upward; it did not carry down. I have driven on this vein 15 feet. For a few feet after we lost the tin the drive went through a floor of partly decomposed white spar 2 to 3 inches thick, dipping S.E., and it is not unlikely that this floor has carried the tin with it. There is a lot of water making along the course of this floor, and I notice since this water has been tapped the water in No. 2 has largely abated. I put two men this month to open up on the patch of good tin ground met with in No. 3 to see what it will make.—Willink's adit. As I mentioned in my last report, work was resumed here on the 1st of the month. The entrance of the drive has been cleared and retimbered, and the men started to work in No. 2 section. Lode 5 to 6 feet wide, yielding very good ore. I set a party the 1st of the month to put in a crosscut north from this stopes to a winze sunk from No. 1 above, distance to drive about 70 feet. When connection is made it will improve the ventilation here, which is very bad just now. We can also send the tinstuff obtained through this winze down to the main tram road from the No. 1 above in Nicholson section, where I set, the 1st of this month, a party of six men to drive east.—Campbell's. Crosscut to Campbell's lode. Six men started to work here this month. I expect to intersect the lode by the end of the present month or early next month, where I expect to meet with payable tin ore.

VICTORY CHARTERS TOWERS.—Mine manager's report for fortnight ending July 13.—No. 1 shaft. During the past fortnight stoping has been carried on above No. 2 level on Papuan reef, south side of underlie. The reef will average 10 inches. The quality of the stone is looking about the same. I do not think there is any improvement in it. You will see by the pay-sheet that the number of hands are reduced here. I have them working at No. 3 shaft. There has been hauled from this shaft for the fortnight 25 tons. Total at surface 110 tons.—No. 2 shaft. The crossdrive at the 320 feet level has been driven 7 feet, total 28 feet. There is no change here to report. The country is still keeping very hard; no sign of meeting any formation yet. In the No. 1 A the rise is up 60 feet from back of drive; the width of the rise is about 30 feet. The stone here is very irregular in patches through the formation of from 6 to 30 inches. At present it is going up almost vertical. Intermediate, between this drive and No. 1 A, the reef is about worked out; this week will finish it. In driving this level we left a small reef under foot. I intend seeing what it is like as soon as we have finished above. The winze in No. 7 level has been sunk 9 feet for the fortnight. Present depth 57 feet. There is 18 inches of fair-looking reef in the bottom. In the rise at bottom of underlie the reef is small—about 6 inches, average quality. There has been hauled from this shaft 70 tons for the fortnight.—No. 3 shaft. The water chamber is about finished. There is 23 feet of timbering to be done in shaft, and pump to put in its place. I expect to be working in bottom of shaft next Wednesday. The surface work in connection with shaft will be finished next week.

—The sales of coal in connection with the NERBUDA COAL and IRON COMPANY (LIMITED) for the month of July are 401 tons.

AUSTRALIAN BROKEN HILL CONSOLS.—The mining manager reports by mail for the fortnight ending July 18: Block 96, level east prospecting drive No. 4 rise stops, east drive No. 1 rise, driven 13 feet 6 inches, total 26 feet 6 inches. The lode is small, consisting of iron and quartz. South-west stop driven 3 feet. The lode here not looking encouraging, the men have been transferred to continue rising the north-east stop. North-east stop driven 10 feet. The lode is small, consisting of iron and quartz. Rise near shaft driven 14 feet, total 23 feet. The lode here is a little narrower. Galena has been met with in carbonate of iron. 280 level west driven 18 feet, total 241 feet 6 inches. The lode is well-defined, also no change.—Incline. No. 6 rise east driven 9 feet 6 inches, total 47 feet. The lode is consisting of carbonate of iron and calcite, is well-defined, and country still hard, and the water is slightly increasing. No. 5 level east, No. 1 rise driven 4 feet 6 inches, total 23 feet 6 inches; no change; the country is very hard. The men working here have been engaged in cutting out for a dam in 280 level east.—Diamond drill. Diamond drill is working well, and No. 2 bore is now down 134 feet.—Note. The quantity of rock mined during the fortnight was 2592 cubic feet.

BRITISH BROKEN HILL PROPRIETARY.—Mining manager's report for the week ending July 10: Blackwood (No. 1) shaft, 200 feet level. South-west drive from bottom of winze, in No. 1 west crosscut, was extended 16 feet, total 24 feet. Face still in very fair grade sulphide ore. We broke 19 tons, average 24 per cent. lead, 18½ ounces silver per ton, and 26 per cent. zinc. We have completed timbering up winze in western extension, and have driven the west crosscut from bottom of same 16 feet, 12 feet of which were driven through good grade carbonate ore. The last 4 feet have been in a sulphide ore of fair value. We broke 15 tons of carbonates, assaying 20 per cent. lead and 26 ounces silver, and 15 tons of sulphides, assaying 18 per cent. lead, 22 ounces silver, and 30 per cent. zinc. We are also preparing to excavate winze chamber in long west crosscut from western extension at a point about 80 feet west of above winze.—300 feet level. Preparations are being made to excavate a flat on the west side of this shaft.—Howell (No. 2) shaft, 300 feet level. West crosscut from flat was advanced only 3 feet, making its total length 76 feet. Face in extremely hard lode matter. 270 feet level (off Far North winze), east crosscut from winze, driven 94 feet. Face in country.—Marsh (No. 6) shaft, second level, No. 2 tributaries mined 11½ tons of carbonates during the past week, average 24 per cent. and 42 ounces silver per ton. Only a small quantity of carbonate ore was mined from winze stopes down west crosscut for the week, as men have been putting in an easterly crosscut, same being driven 11 feet, with barren results so far; this is being put in to test the footwall. On west side of stopes we have risen up on the lode, and connected with second level, and stoping will be proceeded with again. We mined 12 tons of carbonate ore, assaying 27 per cent. of lead and 68 ounces silver per ton.—Junction 300 level. North-east drive lengthened 9 feet, total 69 feet. Have stopped this for the present, and are now starting a crosscut eastwards to prove wall.—Ore shipments. The following lot of first-class carbonates ore has been delivered from Marsh (No. 6) shaft, and sold to Block 14 Company at Port Adelaide—viz., 70½ tons net containing 14 tons lead and 3182 ounces silver. The week's assays vary—carbonates from 35 to 43 per cent. lead, and 5 to 138.5 ounces silver, sulphides from 15 to 27.1 ounces silver, and 19 to 34.5 per cent. zinc. Mining manager's report for the week ending July 17: Blackwood No. 1 shaft, 300 feet level. Have commenced excavating flat chamber on west side of shaft.—200 feet level. South-west drive from bottom of winze in No. 1 west crosscut lengthened 15 feet, total 39 feet. Sulphide ore of very fair value showing all the way. We broke 25 tons sulphide ore, assaying 20 per cent. lead, 19 ounces silver and 31 per cent. zinc. Westerly crosscut off bottom of winze in eastern extension driven 18 feet, total 34 feet. Face showing mixture of sulphides and carbonates. We mined 20 tons, assaying 15 per cent. lead, 14 ounces silver per ton, and 21 per cent. zinc. Winze chamber in long west crosscut from western extension is completed, and sinking was commenced to-day. We broke 17 tons, assaying 22 per cent. lead, 14 ounces silver per ton, and 21 per cent. zinc.—Howell No. 2 shaft, 300 feet level. West crosscut from flat advanced 4 feet, total 80 feet. Face still in extremely hard lode matter.—270 feet level. East crosscut off far north winze extended 15½ feet, making total distance 25 feet. Face in lode material showing sulphide ore.—Marsh No. 6 shaft, 2nd level. The tributaries mined 15 tons carbonates, assaying 20 per cent. lead and 39 ounces silver per ton, but this work is now stopped, as lode has pinched very small. We completed the rise on west side of winze stopes, through which the ore will now be hoisted. The east crosscut was put in another 7 feet, total length 18 feet. Face in lode matter of no value. We mined 31 tons carbonates from these stopes, assaying 23 per cent. lead and 46 ounces, and 2 tons 22 per cent. lead and 20 ounces silver per ton. All the men are now stoping ore again.—Junction 300 level. East crosscut started off north-east drive was driven 25 feet through lode material of no value.—Ore shipments. We have delivered the following lot of first-class carbonates ore from Marsh No. 2 shaft, and sold same to Block 14 Company, Port Adelaide—viz.: 130 tons net, containing 25½ tons lead, and 6545 ounces silver. We have also delivered and sold to Block 14 Mine, Broken Hill, 216 tons net sulphide ore from main workings, which contained 64½ tons lead and 2071 ounces silver. The week's assays vary from carbonates 5 to 36.5 per cent. lead, and 6.5 to 119.5 ounces silver per ton. Sulphides 4.5 to 33 per cent. lead, 6 to 23.5 ounces silver per ton, and zinc from 17 to 36 per cent.

BALAGHAT MYSORE.—The following report has been received from the superintendent, Captain Joseph Pryor:—Ore's shaft. The 270 feet level south of the east crosscut has been driven 17 feet 6 inches, or 115 feet from this crosscut. The lode continues to yield quartz of from 9 inches to 1 foot wide, and of an assay value varying from 4 to 6 dwts. of gold per ton.—Tennant's shaft. This shaft has been sunk 16 feet 6 inches, or 51 feet below the 600 feet level. The general character of the ground, although at present unproductive, is of a kindly appearance. The 500 feet level north has been advanced 23 feet 6 inches, or 262 feet from shaft. We have passed through the dyke at about 22 feet behind the present end, and then struck the lode, on the course of which the latter distance of 22 feet has been driven; and although it occasionally yielded quartz varying from 2 inches to nearly 1 foot wide, it has not been of a very regular character; this is doubtless due to the influence of the dyke, and we shall, I hope, find that the lode will improve as we extend north. The crosscut west of the 420 feet level north has been advanced 20 feet, or 77 feet from the level. Only a small branch has as yet been met with; this does not just now appear of sufficient value to drive on. We are, therefore, continuing the extension of the crosscut, but later on we shall open out a few feet on the branch. The ground in the No. 2 winze, in the bottom of the 410 feet level north, is very hard for sinking, and, as it is being sunk with hand labour, the progress is very slow. The winze is now down 6 feet below the level, and continues to yield quartz of 2 feet wide, and of an assay value of 4 dwts. per ton.—Surface. We are pushing on as fast as possible with the necessary excavations for the new cyanide works, and hope to have everything in readiness for the reception of the plant by the time it arrives from England.

CHIAPAS.—Mining report for fortnight ending July 15: San Juan crosscut driven 12 feet, total 30 feet. Assays 1 dwt. gold, 4 ounces 19 dwts. silver, and 3.43 per cent. copper, which is an improvement in copper contents. Cut into extensive crevices. Providencia Aver driven 24 feet, total 336 feet. Passed through small dyke reported last fortnight; traces of ore, but very poor. Assays 6 grains gold, 1 ounce 17 dwts. 18 grains silver, copper nil. Putting in crosscuts both on Santa Fé side and other side of dyke. Providencia Aver rise No. 2, driven 6 feet, total 42 feet. Assays 2 dwts. 17 grains gold, 2 ounces 7 dwts. 12 grains silver, and 1.35 per cent. copper. Not looking as good as last reported. Santa Fé Hill No. 3 driven 4 feet 6 inches, total 99 feet; no change. Pine Creek No. 2 driven 12 feet, total 110 feet. As we judge we are approaching contact. We have suspended until San Francisco is pumped out, as any influx of water on this side would drown out pumps. Pine contact driven 23 feet, total 23 feet. Sylva contact driven 22 feet, total 22 feet. In both these last drifts ore is met with, though not in paying quantities, showing evidences of a heavy squeeze sometimes in the igneous rock

or a foot or two away in a hard chert-looking rock. Taylor main extension driven 3 feet 6 inches, total 646 feet. Assays 6 grains gold, 1 ounce 4 dwts. 12 grains silver, and 0.45 per cent. copper.—Extraction. Santa Fé Hill extracted 48 tons. Assays 1 ounce 6 dwts. gold, 9 ounces 9 dwts. silver, 3.93 per cent. copper. Santa Fé stopes extracted 211 tons. Assays west, 4 dwts. gold, 2 ounces 11 dwts. silver, and 1.22 per cent. copper; east, 7 dwts. 12 grains gold, 4 ounces 8 dwts. 12 grains silver, 2.3 per cent. copper. Taylor No. 3 extracted 41 tons. Assays 16 dwts. gold, 7 ounces 17 dwts. silver, 3.64 per cent. copper. Old Providencia extracted 346 tons. Assays 18 dwts. gold, 11 ounces 3 dwts. silver, 4.5 per cent. copper.

CRESCENT GOLD.—Fortnightly report of Mr. T. G. Davey, superintendent, dated July 19: Crescent Mine. The south tunnel has 34 feet, total 73 feet. Quartz veins continue to be met with, and the rock is very favourable for driving; the contractors making good headway. Dive north of shallow tunnel towards north shoot advanced 44 feet, total 63 feet. The lode continues as when last reported, having a most promising appearance, and carrying colours of gold. The contractors here are also doing good work, and the north shoot should soon be reached. We are about to put on a rise on the south shoot at a point from which the last most satisfactory mill test was taken. The main object of this rise is to promote ventilation at this section of the mine, and thus enable us to drive south towards the continuation of the auriferous stone which has been disclosed by a number of surface cuts or trenches.—Orlando Mine. The Orlando deep tunnel has only advanced 5 feet. Much time has been taken up in forming and securing the mouth of the tunnel, which was very dangerous on account of the precipitous nature of the hillside, and in procuring a stock of timber, &c. All is now in order, and better progress will in future be made by the contractors.—Tramway and water race. These are now being finally levelled, and tenders will be called for their construction in about a week. The tramway to the Orlando mill site will be about 1½ mile long, and the race about 1½ mile.

HANNAN'S BROWN HILL.—The following is an extract from a letter, dated July 20, received by Messrs. Bewick, Moreing, and Co., from the acting manager at Hannan's, West Australia:—No. 3 winze has now reached a depth of 40 feet, and is in very rich ore the whole size of the winze, viz., 3 feet, without showing any wall. The whole of the stuff taken out yesterday and the day before was so rich I had it all bagged underground. We have sunk upwards of 4 feet in the rich ore, and are still in it. If you will be good enough to refer to the longitudinal section of the mine, you will see the great importance of this development. From No. 1 winze southerly we passed through good rich ore past No. 3 winze, which is 150 feet from the shaft, and now at a depth of 40 feet we find the lode as rich as ever.

KANGARILLA.—The manager writes from the mine, under date July 23: Stoping is still going on in good solid ore. Assay value, silver 103 ounces 8 dwts. 16 grains; gold, a trace.

MYSORE REEFS (Kangandy).—Fortnightly report of Captain Scantlebury, dated August 6: Underlie shaft. This shaft has been sunk 7 feet, now 94 feet 6 inches below the 325 feet level. The lode is showing two fine walls 6 feet apart. In the middle of the lode there is now 2 feet of solid quartz, assaying 1 ounce 12 dwts. of gold to the ton. The remaining part between walls is small branches of quartz pyrites and country rock. I am in hopes that the lode will still further improve. Winze below the 325 feet level north has been sunk 4 feet, now 48 feet below the level. The quartz is 3 feet wide, assaying 3 ounces 4 dwts. of gold to the ton.—Stopes in bottom 325 feet level north. The quartz varies from 1 foot to 3 feet, and is worth 1 ounce 16 dwts. of gold to the ton. 325 feet level north has been extended 11 feet 6 inches, now 193 feet from shaft. This is communicated with the winze below the 200 feet level south of vertical shaft. The quartz in the present and is 1 foot wide and worth 6 dwts. 12 grains of gold to the ton.—Vertical shaft. Winze below 260 feet level north. The lode is 5 feet wide, and worth 2 ounces of gold to the ton. There is a very fine lode in this winze. Winze below 200 feet level south has been sunk 5 feet 6 inches, now 89 feet below the level. This is communicated with the 325 feet level north from underlie shaft, and the men put to stopes north of winze. Winze below 200 feet level north has been sunk 5 feet, now 43 feet 6 inches below the level. The quartz is 2 feet wide, and worth 10 dwts. of gold to the ton. Rise above the 260 feet level has been put up 7 feet, now 7 feet above the level. The quartz is 2 feet 3 inches wide, assaying 8 dwts. of gold per ton.—Health. I am pleased to say the health of the camp is good.

MYSORE GOLD.—Richard Hancock, August 6: Report of mining operations for the fortnight ending August 5: Rowe's shaft, 1450 feet level north of crosscut west. The rise in the back of this level has been put up 14 feet, making a total height of 29 feet. The lode is 2 feet wide, assaying 1 ounce 6 dwts. 3 grains.—1460 feet level north of sump winze. This level has been driven 15 feet, making a total distance driven of 327 feet. The lode is 4 feet wide, assaying 17 dwts. 14 grains. We have started a rise in the back of this level, 200 feet north of the sump winze, which has been put up 3 feet. The lode is 4 feet wide; no assay made.—1460 feet level south of sump winze. Driving south from the bottom of the south winze, driven 20 feet, making a total distance driven of 120 feet. There is nothing here to report.—1360 feet level south of crosscut. There are two stopes in the back of this level, the average width of the lode being 1 foot 6 inches, giving an average assay of 12 dwts. 17 grains.—1360 feet level north of crosscut. The winze in the bottom of this level has been sunk 13 feet, making a total depth of 30 feet. The lode is 2 feet wide, assaying 2 dwts. 14 grains. There are two stopes in the back of this level, the average width of the lode being 1 foot 9 inches, giving an average assay of 1 dwt. 7 grains.—1360 feet level north of sump winze. This level has been driven 17 feet, making a total distance driven 183 feet; there is nothing here to report.—1360 feet level south of sump winze. This level has been driven 2 feet, making a total distance driven of 120 feet. The lode is 4 feet wide, no assay made. The driving of this level has been temporarily suspended, and the machine was put to sink a winze in the bottom of the level 100 feet south of the sump winze, which was sunk 15 feet, and holed to the incline rise put up in the back of the 1460 south of sump winze. The machine is now engaged in raising in the back of the level over the above-mentioned winze to continue the communication to the 1250 feet level. Rise 4 feet, the lode is 4 feet wide, but no assay has yet been made.—1250 feet level north. This level has been driven 15 feet, making a total distance driven of 832 feet. There are nine stopes in this level, the average width of the lode being 3 feet 5 inches, giving an average assay of 13 dwts. 18 grains.—Driving south on the fold from the top of the sump winze. Driven 13 feet, making a total distance driven of 61 feet. The lode is 1 foot wide, assaying 4 dwts. 13 grains.—1260 feet level south. We have resumed the driving of this level, which has been driven 3 feet, making a total distance driven of 143 feet 10 inches. The lode is 4 inches wide. No assay made. There are 3 stopes in the back of this level, the average width of the lode being 3 feet, giving an average assay of 15 dwts. 5 grains.—1160 feet level north. The lode in the stopes in the back of this level is 1 foot 6 inches wide, assaying 17 dwts. 6 grains.—1160 feet level south. This level has been driven 16 feet, making a total distance driven of 514 feet 6 inches. The lode is 1 foot 6 inches wide, assaying 1 dwt. 7 grains. We have started a rise in the back of this level, 320 feet south of the shaft, which has been put up 3 feet. The lode is 1 foot 6 inches wide. No assay made. There are 2 stopes in this level, the average width of the lode being 1 foot 9 inches, giving an average assay of 1 ounce 5 dwts. 20 grains.—North of the crosscut east. This end has been driven 2 feet, making a total distance driven of 111 feet. The lode is 1 foot wide, assaying 1 ounce 15 dwts. The lode in the stopes in the back of this level is 2 feet 6 inches wide, assaying 1 oz. 2 dwts. 4 grains.—South of the crosscut east. This end has been driven 5 feet 6 inches, making a total distance driven of 83 feet 6 inches. The lode is 9 inches wide, assaying 2 dwts.—1060 level north-east. In intersecting the lode by the eastern crosscut it has been discovered that this level was suspended in close proximity to it, and the driving of the end has now been resumed for the purpose of laying down a straighter and shorter tramroad. Driven 1 foot 9 inches, making a total distance driven of 695 feet 9 inches.

—1060 feet level north of No. 2 crosscut east. This was started on the lode from the end of the crosscut, and has been driven 20 feet 6 inches. The lode is 7 feet wide, assaying 1 ounce.—1060 feet level south of No. 2 crosscut east. This was started on the lode from the end of the crosscut, and has been driven 16 feet 9 inches. The lode is 6 feet wide, assaying 1 ounce.—890 feet level north. The lode in the stopes in the back of this level is 2 feet wide, assaying 1 ounce 4 dwts. 19 grains.—890 feet level north of crosscut. This end has been driven 19 feet, making a total distance driven of 417 feet. The lode is 4 feet wide, assaying 1 ounce 13 dwts. The winze in the bottom of this level has been sunk 13 feet, making a total depth of 60 feet 6 inches. The lode is 2 feet 6 inches wide, assaying 1 ounce 18 dwts. 6 grains. There are three stopes in the back of this level, the average width of the lode being 2 feet 8 inches, giving an average assay of 1 ounce 3 dwts. 1 grain.—780 feet level north. The lode in the stopes in the back of this level is 2 feet wide, assaying 6 dwts. 12 grains.—780 feet level north on new chute. There are five stopes in this level, the average width of the lode being 2 feet 5 inches, giving an average assay of 12 dwts. The crosscut east in this level has been driven 5 feet, making a total distance driven of 25 feet, and holed to Crocker's shaft. The machine has also driven 16 feet north of the shaft for a flat.—620 feet level north of crosscut. There are four stopes in this level, the average width of the lode being 2 feet 6 inches, giving an average assay of 8 dwts. 2 grains.—620 feet level south of crosscut. There are two stopes in this level, the average width of the lode being 2 feet 3 inches, giving an average assay of 9 dwts. 10 grains.—Driving south on the branch in the 620 crosscut east. This end has been driven 2 feet, making a total distance driven of 55 feet. The lode is 1 foot wide, assaying 4 dwts. 13 grains.—Crocker's shaft. This shaft has been sunk 13 feet 6 inches, making a total depth of 21 feet 6 inches below the crosscut. We have just started west to intersect the lode now being driven on in the 890 feet level. The latter level will communicate with this crosscut. From the 620 to 890 in the shaft is 301 feet. The sinking has been temporarily suspended. The crosscut west has been driven 9 feet.—236 feet level north. The lode in the stopes in the back of this level is 1 foot 6 inches wide, assaying 10 dwts. 10 grains.—Taylor's shaft, 466 feet level north. The lode in the stopes in the back of this level is 2 feet wide, assaying 3 dwts. 6 grains.—Gilbert's shaft. We are clearing up this preparatory to resuming the sinking.—520 feet level north. There are three stopes in the back of this level, the average width of the lode being 2 feet 2 inches, giving an average assay of 15 dwts. 5 grains.—520 feet level south. The lode in the stopes in the back of this level is 2 feet wide, assaying 19 dwts. 14 grains.—430 feet level north. There are two stopes in this level, the average width of the lode being 1 foot 6 inches, giving an average assay of 9 dwts. 10 grains.—360 feet level north. The lode in the stopes in the bottom of this level is 2 feet wide, assaying 1 dwt. 7 grains.—290 feet level north. There are two stopes in the back of this level, the average width of the lode being 2 feet 2 inches, giving an average assay of 14 dwts. 15 grains.—180 feet level south. There are two stopes in the back of this level, the average width of the lode being 2 feet 6 inches, giving an average assay of 18 dwts. 22 grains.—Tennant's shaft. 750 feet level north of crosscut west. This level has been driven 14 feet 6 inches, making a total distance driven of 83 feet 6 inches. The lode is 1 foot 2 inches wide, mixed, assaying 2 dwts.—520 feet level north. There are two stopes in the bottom of this level, the average width of the lode being 1 foot 6 inches, giving an average assay of 3 dwts. 21 grains.—Schaw's shaft. 450 feet level north of crosscut. There are three stopes in the back of this level, the average width of the lode being 1 foot 5 inches, giving an average assay of 7 dwts. 14 grains.—450 feet level south of crosscut. This level has been driven 2 feet, making a total distance driven of 338 feet 3 inches. There is nothing here to report. The winze in the bottom of this level has been sunk 6 feet 6 inches, making a total depth of 120 feet 6 inches, and holed to the 550 feet level south of the crosscut west of McTaggart's. There are three stopes in the back of this level, the average width of the lode being 1 foot 6 inches, giving an average assay of 10 dwts. 4 grains.—McTaggart's shaft. This shaft has been sunk 5 feet 6 inches, making a total depth of 79 feet below the 550 feet level.—556 feet level north. This level has been driven 11 feet 5 inches, making a total distance driven of 179 feet 8 inches. There is nothing here to report.—550 feet level south of crosscut west. This end has been driven 10 feet 9 inches, making a total distance driven of 149 feet 3 inches. The lode is 6 inches wide, no sample taken. We have started to sink a winze in the bottom of this level 90 feet south of the crosscut, sunk 3 feet. The lode is 3 feet wide, assaying 15 grains.—320 feet level south. There are three stopes in the back of this level, the average width of the lode being 1 foot 5 inches, giving an average assay of 6 dwts. 7 grains.—Glen shaft. 250 feet level north, No. 1 crosscut east. This has been driven 3 feet, making a total distance driven of 38 feet 6 inches.—Ribblesdale's shaft. This shaft has been sunk 10 feet 6 inches, making a total depth of 22 feet below the 1060 feet.—1460 rise. This has been put up 8 feet, making a total height of 28 feet 6 inches.—Williams' shaft. Crosscut east from the 173. This has been driven 3 feet, making a total distance driven of 141 feet.—Health. Good.—Water. Scarce.

NINE REEFS.—Mining report for fortnight ending August 6:—Vivyan's shaft. The stopes in the bottom of the 220 feet level south of the shaft continue to produce quartz of from 6 to 9 inches wide, and assays 1 ounce 15 dwts. of gold per ton. A new stopes in the bottom of the 220 feet level north yields quartz of 8 inches wide, and assays 1 ounce 1 dwt. 8 grains per ton. We have now only one stopes working in the back of the 220 feet level south. This yields quartz of from 6 to 8 inches wide, and assays 1 ounce 6 dwts. per ton. The stopes in the bottom in the 145 feet level north produces quartz of 8 inches wide, and assays 1 ounce 5 dwts. 4 grains per ton. The stopes in the back and bottom of the 145 feet level south of the shaft produce quartz varying from 6 inches to 1 foot wide, and assay on an average 1 ounce 8 dwts. 1 grain per ton.—South shaft. This shaft has been sunk 5 feet, or 53 feet 3 inches below the 210 feet level. The lode continues to improve in appearance, and now produces a little quartz, which assays 5 dwts. 19 grains per ton. The 210 feet level north has been advanced 8 feet, or 131 feet 9 inches from the shaft. The lode is about 3 feet wide, occasionally produces small veins of quartz, the assay value of which varies from 4 dwts. to 5 dwts. 4 grains per ton. The 210 feet level south has been extended 4 feet 3 inches, or 85 feet from the shaft. The lode is of a kindly character, and at times yields patches of quartz. In extending these north and south levels we are constantly meeting with small streams of water, and consequently causing an extra strain on our present limited pumping appliances—viz., a small Cameron pump fixed at this level. It also tends to considerably retard the sinking of the shaft, which we regard as just now being our most important point to develop. We have, therefore, decided to suspend their driving until we are in a better position to cope with the water.—McTaggart's No. 1 shaft. This shaft has only been sunk 1 foot 6 inches, or 47 feet 6 inches below the 100 feet level. The lode varies from 10 inches to 14 inches wide, and assays about 4 dwts. per ton. The water is now so quick that it keeps the men all the time at the windlass baling it, consequently it is impossible to obtain, with hand-labour, only, any satisfactory progress in the sinking, and, further, it is a most difficult matter to get a contractor to even continue working for any length of time. We have, therefore, been obliged, for the present, to suspend the work at this shaft.

NUNDYDROOG.—Thomas Richards, August 6: Report for the fortnight ending August 3:—Taylor's shaft. The 1240 feet level south has been driven 12 feet, total distance 41 feet 6 inches. Lode 6 inches wide, assays 1 dwt. 6 grains gold per ton. The 1240 north has been driven 14 feet, total distance 62 feet 6 inches. Quartz 6 inches wide, assays 2 dwts. 12 grains. In the stopes in the back of the 1000 north the lode consists of quartz 2 feet wide, assaying 1 ounce 8 dwts. 18 grains. The 920 north has been driven 16 feet, total distance 193 feet. Lode 1 foot wide, assays 3 dwts. 18 grains. In the stopes in the back of the 760 north the lode is 2 feet 6 inches wide, and assays 7 dwts. 12 grains. The lode in the stopes in the bottom of the 680 north is 2 feet wide, and assays 8 dwts. 18 grains. In three stopes between the 600 and 520 levels north the lode averages 2 feet 2 inches in width, and 7 dwts. 12 grains in assay value. The lode in

the slope in the back of the 520 north is 2 feet wide, and assays 7 dwts. 12 grains. In the slope in the back of the 300 north the lode is 1 foot 3 inches wide, and assays 11 dwts. 6 grains. Main shaft has been sunk 7 feet, total depth 14 feet 6 inches below the 1080 level. The lode 3 feet wide, with stringers of quartz, assays a trace of gold. The 1080 level north has been driven 22 feet 6 inches, total distance 161 feet. During the fortnight this driftage has been passing through the crosscourse met with in the levels above, but the lode has proved auriferous throughout, the present assay value for a width of 5 feet being 1 ounce 1 dwt. 6 grains. The 1000 north has been driven 9 feet, total distance 334 feet. The lode is 4 feet wide with stringers of quartz, carrying a trace of gold. The 1000 north rise has been put up 24 feet 6 inches, total height 49 feet. Lode 2 feet wide, assays 1 ounce 18 dwts. 18 grains. In the slope in the back of the 920 south the lode is 6 feet wide, and assays 1 ounce 16 dwts. 16 grains. In the two stopes in the back of the 840 south the lode averages 4 feet 6 inches in width, and 10 dwts. in assay value. The 680 south from north crosscut east on main lode has been driven 8 feet 6 inches, total distance 17 feet. The lode is 1 foot wide, with quartz stringers; is of no value. The 680 north on Kennedy's lode has been driven 13 feet, total distance from crosscut east 57 feet. Lode of no assay value. The 680 north crosscut west has been extended 8 feet, total distance 171 feet. No change. The 520 north from crosscut east has been driven 23 feet, total distance 74 feet. Lode disordered and of no assay value. The 370 crosscut has been extended eastward 11 feet, total distance 88 feet. The driftage has now been turned north upon a lode passed through at 82 feet in the crosscut. Kennedy's shaft has been sunk 9 feet 6 inches, total depth 70 feet below the 600 foot level. The 600 south has been driven 21 feet, total distance 139 feet. Lode 2 feet 6 inches wide, assays 5 dwts. The 600 north has been driven 27 feet, total distance 187 feet 6 inches. Lode 1 foot 6 inches wide, assays 2 dwts. 12 grains. The 520 south has been driven 18 feet, total distance 627 feet. Quartz 6 inches wide, assays 1 dwt. 6 grains. The 520 north crosscut west has been extended 21 feet, total distance 74 feet 6 inches. No change. The 440 south has been driven 27 feet 6 inches, total distance 1066 feet. Lode 3 feet wide, assays 2 dwts. 12 grains. The 440 south rise has been put up 1 foot 6 inches, total height 106 feet, and communicated with the 370 feet level by a crosscut east of 12 feet. In the slope in the back of the 440 south the lode is 2 feet 6 inches wide, and assays 1 ounce. The lode in the slope in the bottom of the 440 north consists of quartz 7 feet wide (part carried), assaying 1 ounce 10 dwts. gold per ton. In the slope in the back of the 440 north the lode is 10 feet wide, and assays 1 ounce 2 dwts. 12 grains. The 370 south has been driven 15 feet 6 inches, total distance 761 feet. Lode 3 feet wide, assays 3 ounces 5 dwts. In two stopes in the back of the 370 north the lode averages 5 feet in width, and 2 ounces 2 dwts. 12 grains in assay value. The 370 south from north crosscut west has been driven 10 feet 6 inches, total distance 56 feet 6 inches. Lode 6 inches wide, is of no assay value. The 300 south has been driven 26 feet 6 inches, total distance 666 feet. Lode 1 foot wide, assays 3 ounces 7 dwts. 12 grains. In the slope in the back of this level quartz 4 inches wide, assays 1 ounce 6 dwts. 6 grains. The 230 feet level south has been commenced from the slope on the south side of north shaft, and extended 2 feet 3 inches, total distance from north shaft 15 feet. Lode 9 inches wide, assays 8 dwts. 18 grains. In the slope in the back of the 160 feet level north, the lode 3 feet wide, assays 1 ounce 1 dwt. 6 grains. North shaft has been sunk 2 feet 6 inches, total depth 65 feet 6 inches below the 520 feet level. Lode 1 foot wide, is of no assay value. Assay report. Old mill samples. Pulp, 1 ounce 1 dwt. 6 grains; tailings, 3 dwts. 18 grains. New mill samples. Pulp, 1 ounce 13 dwts. 18 grains; tailings, 4 dwts. 18 grains.

NEW CLEWER ESTATE.—According to a cablegram received from the head office of the above company, it was resolved at the extraordinary meeting of shareholders, held at Johannesburg, that the offer for the amalgamation of this company with the Lydenburg Mining Estates (Limited) be accepted. According to the terms of the agreement the New Clewer Estate and Gold Mining Company (Limited) in exchange for all its property and assets, will receive 50,000 shares in the capital of the Lydenburg Mining Estates (Limited).

PUNJOM.—The secretary advises the receipt of the following report for June from Mr. Blaney, the manager at the mine:—Mining. August shaft, 200 feet level. The No. 2 east crosscut has been extended a further distance of 24 feet 6 inches, making it 377 feet 6 inches from the main north crosscut. Nothing of value was met with, however, and as it is out beyond the supposed course of Gillies reef, work there was discontinued, and the men brought back to open up north and south on the course of the ore passed through in the early part of last month, and referred to in my last report. The ore we are driving on shows both copper and iron pyrites, but up to this is not of sufficient value to mill.—Intermediate 140 feet level. All the stopes here continue to give their usual quantities of ore for the mill, and are without change to notice. The new shaft will connect with this level within the next two days, when, after putting in the necessary timbers for the pit, it will be continued down to the 200 feet level.—110 feet level. The only work going on at this point is the sinking of the new shaft, which, as just mentioned, will connect with the intermediate within the next two days. We shall now prepare for driving a crosscut east to intersect the course of Gillies' reef at this level.—Upper stopes. These having become exhausted, work there has ceased. The small leader discovered in the north side of these stopes near the surface continues to yield ore of very good quality, and gives promise of doing so for some little time longer.—Gillies' reef, mill gully tunnel. The north drive here has been extended 45 feet, making it 357 feet from the month. It continues to give ore of fair grade for the mill, but I regret to say the reef is very much disturbed in places by the intrusion of dyke matter. The winze was sinking at the date of my last report got entirely into dyke formation, and as there is water to be contended with, which makes the work expensive and progress slow, it was decided to wait till it was drained by the crosscut we are about to begin at the 110 feet level.—August shaft. Total driftage for month 543 feet 6 inches, ore mined 725 tons, made up as follows:—August shaft, 545 tons; mill gully, 110 tons 10 cwt.; upper stopes, 19 tons 10 cwt.; new leader, 50 tons.—Milling. This was carried on during 22 days, with full battery, crushing 920 tons, yielding 376 ounces 4 dwts. of smelted gold—viz., 720 tons of ore from the mine for 347 ounces 4 dwts. gold, and 197 tons headings for 29 ounces. You will see the quantity of ore milled is much below our average, and as this is owing to the worn-out state of the old battery—the foundations of which are quite rotten—we have decided to take it down and re-erect it, using only the very best timber in both the foundations and frames. This is a pretty big job, but I am hoping it will be done without materially decreasing our monthly output of gold.—Cyanide works. This was carried on to the 1st inst, when a stop was made for the clean-up. The result was sent you in due course, so I need not refer further to it here. It is now running on tailings with about 5 per cent. of concentrates, and as Mr. White assures me his extractions are good and the material operated on of very fair grade, I am hoping for fairly good results this month. We shall clean up on the 3rd proximo, by which time 750 tons will have been treated for the month. Of course, I need not tell you that there are many little stoppages in the work, owing partly to the men being new to it. A small battery has been erected to crush the lumps of oxidised tailings and concentrates, which is doing its work very well indeed, and as this is run off the water-wheel the cost is trifling.—General. We are giving due attention to all work coming under this head.—Labour. The supply of this is without change.—Health. This I am pleased to say is much better, the influenza and bronchitis having almost entirely left the camp.—Rain-fall. This has been most unusually low, the total being $\frac{1}{2}$ inch only.

A NEW ANGLO-AFRICAN PAPER.—We have received the first number of the *African Critic*, a new venture in Anglo-African journalism, which will be edited by Mr. Henry Hess, founder and editor of the *Johannesburg Critic*. A publication such as this will doubtless be welcomed by those interested in the subjects it discusses.

THE MOUNT BISCHOFF TIN MINING COMPANY.

THE following is the report of the directors of this company, submitted to the shareholders at the general meeting of the company, held at Launceston, Tasmania, on Wednesday, July 31 last:—The accounts submitted at the last general meeting showed a balance to the credit of the profit and loss account of £32,909 14s. 5d., to which has since been added the sum of £23,391 18s. 7d., being the earnings of the past half-year, making a total credit of £56,301 13s. Of this sum, £19,500 has been distributed in dividends, £2600 5s. paid for income tax, and £47 5s. 8d. for interest, leaving a balance of £34,151 2s. 4d. to the credit of the account. In addition to the ordinary expenses of the mine, £594 11s. 6d. has been expended in connection with the water-races, dams, &c., and £1297 7s. 2d. in the purchase and erection of new plant.

MINE MANAGER'S REPORT.

Operations during the past six months have been as follows:—White Face. The porphyry cutting has been the main source of supply of crushing material from this face, and has yielded 7550 tons. The stone has been of fair quality, the only drawback being the large quantity of pyritic stone, which not only reduced the quantity to be crushed, but caused trouble and expense in its removal and stacking for future treatment. The dimensions of the cutting are as follows:—Length, 274 feet; width, 150 feet; and the height about 70 feet. The only other work carried on outside the cutting is the breaking out of gossan ore further west, but as only two men are employed, the result is not materially affected. In connection with the other works referred to in my last report, I have to state that the adit has been completed to the shaft, the distance driven, including chamber, being 228 feet, and the drive is sufficiently large for a double tramroad. The foundation for the first hopper is laid, but it will be necessary to thoroughly secure the ground before any attempt is made to put up a rise and construct a pass, as at this point the porphyry dyke makes a junction with the slate, and there is, consequently, a weakness in the formation—the porphyry being hard, and the slate soft. The tramroad will be completed as soon as possible, but during the construction of the hopper only one line will be used.—Slaughter-yard face. Two new faces have been opened and are now being worked, being situated respectively north and south. The northern face was started at a lower level, and is now in gossan ore, some of which is of very good quality. The southern face is also yielding a fairly good sample of stone, but it is hard and requires shooting; the stone rests on a slate horse, and breaks well.—Brown Face. A large portion of this face has been worked. At the eastern portion, near the Stanhope Company, where the ground is shallow, I have obtained permission from the manager of the company to remove the tailings and material from beneath their tramroad, on the understanding that the line is to be made good. The other portions of the face have been worked in the usual way, with very fair results. During the wet weather we had a few landslips, without causing damage; in fact, the result was beneficial, as it obviated the necessity for breaking the dirt. The only part giving any trouble is where the slate on the northern wall, becoming broken by rain and frost, when the falling mixes with the crushing material; and as the dirt lying next to the wall carries a fair proportion of tin ore, its separation is imperative, and is troublesome and expensive. A large portion of this dirt is so soft that it offers little resistance to the stampers, and has to be mixed with stone to render it suitable for crushing. Two men are employed at a higher level, between the eastern boundary and Brown Face outcrop, where there is some very good dirt, which is used as economically as possible for mixing with inferior quality. The dirt obtained from the old 13 feet face consists principally of porphyry and porphyry sand of a rather poor quality, but other parts in the vicinity show dirt of a better description. On the southern wall and close to the porphyry dyke just mentioned, there is a good-sized vein of ore lying close to the slate and thinning out east and west, which helps to regulate the output for the present. No work has been done at the incline face since last report, owing to the connection with the Queen lode crosscut and the large quantity of dirt which can be obtained from the shallower levels; and as these are worked out the ground is prepared for deeper levels. Altogether this face looks well, and gives good promise for profitable operations in the future. In the prospecting drive only one man has been employed, and it has been extended 111 feet, making the total length 263 feet. In the last 30 feet driven several ore veins of no commercial value were passed through, but they are well worth following as soon as better ventilation can be obtained. To effect this another drive will have to be put in at a higher level, and connection made by a winze. The ground in the present drive is rather hard, but by driving at a higher level softer ground will be met with, and there is also a better chance of finding good ore. This work will be commenced as soon as an improvement in the weather takes place. The crosscut to the Queen lode was completed on February 19, and the lode which proved to be small was broken into. Since then the crosscut has been driven 197 feet, and the eastern drive 124 feet, other drives 160 feet, and 55 winzes sunk. In addition to this a large amount of stoping has been done. Where work on the lode was commenced it was rather small, but it will probably increase in size as it is risen upon and worked eastward. The lode has hitherto been worked with one or two shifts as men could be spared, as I consider work of this kind of secondary importance to procuring crushing material for the batteries.—North valley. At the end of March it was evident that the lode had dipped under foot, the country rock being distorted and difficult to work, and that it would involve a large expenditure and a great length of time to effect a connection with the Brown Face formation by the No. 2 adit. Estimating the distance still to be driven at 1600 feet, and bearing in mind that there is little prospect at present of opening new ground in this direction, I decided to discontinue driving the tunnel, and later on prospect the formation by following down the ore veins below the main tunnel. The No. 2 adit has been driven 94 feet during the past half-year, making its total length 1836 feet.—Waratah. For the first time in the history of the mine the works at the mine and Waratah were kept in full operation during the summer season, owing to the abundant supply of water obtainable from the reservoirs, and consequently all repairs and alterations had to be effected in such a way as to interfere with the shed work as little as possible. The whole of the machinery is in good condition and working well. The material treated is as follows:—60 H.B., 35,990 tons, producing 830 tons 6 cwt. 1 qr. ore; 15 H.B., 10,025 tons, producing 222 tons 16 cwt. ore. The repairs to the sheds, referred to in my last report, have had constant attention, and will require some time to complete, and I find that it will be necessary to put in new slime and settling boxes, as well as to overhaul the 40 feet water wheel.—Slime sheds. All the machinery has been kept in good working order, and some slight improvements have been effected in the working of the alimes. The output for the six months is 66 tons 1 cwt. 3 qrs.—70 feet shed. There is nothing new to report from these sheds. The machinery is in first class order, and has worked most efficiently. The output is 58 tons 2 cwt. 1 qr.—Ring-tail shed. At this shed work has been intermittent on account of the supply of material from the mine having been irregular. The output is 8 tons 9 cwt. 2 qrs.—Catch'em shed. The work which has hitherto been carried on at this shed will in future be transferred to the Ring-tail shed, and I am of opinion that by the adoption of this plan there will be a considerable saving in working expenses. Two carpenters are now engaged in erecting the framework, and good progress has been made with the dressing floor, but the present severe weather seriously retards the work. The output is 32 tons 9 cwt. 2 qrs.—Tributors. The quantity of ore obtained by the tributors for the past half-year is 2 tons 12 cwt. 2 qrs. 7 lbs.—Stone-breakers. Two of these machines have been kept fully employed, and have only required slight repairs, but No. 1 will shortly need attention, as the hopper and other timber work require renewal. No. 3 machine is erected and ready for work, but is not at present required.—Workshops. The mechanics have been constantly employed in the manufacture of new plant and effecting repairs,—

Foundry. In this branch the workmen have been fully engaged with iron and brasswork, and I can only reiterate the remarks contained in my previous reports that its importance cannot be over-estimated.—Flumes, races, dams, and reservoirs. The race conveying water from Waratah to the Ringtail shed is now in good order and most effective. With the completion of the new reservoir the construction of the Falls creek water supply scheme is completed, and with the exception of trifling repairs from time to time the works will not entail any further expenditure for a considerable period. The reservoir at the mine are now in good condition, an iron pipe having replaced the wooden outlet box in the lower reservoir. On the Fossey line of race the flumes, trestling, and stringers have nearly all been replaced with new material. The renewal of the water culvert by the substitution of 453 feet of 2 feet iron pipes for the woodwork in the shallow portion, and the retimbering of a further length of 330 feet has involved considerable labour, and the completion of the work will probably occupy another month.—Water supply. As already stated the supply of water has been ample for all our requirements during the past half-year.—Railways and tramways. The closest attention has been given to all the lines, and they are in good working condition.—Rolling stock. The locomotives are in good order, having had a thorough overhaul, but a considerable number of the wooden frames of the trucks will require renewal as they have been rendered worthless by rot, and carpenters are now engaged with this work.—Electric light. With the exception of a slight interruption to the lighting caused by a trifling accident to the dynamo the plant has worked most efficiently.—Buildings. No new buildings have been erected, but repairs to a large extent have been executed. The quantity of ore obtained during the past six months and since the formation of the company is as follows:—Obtained during the last six months, 1138 tons 19 cwt. 1 qr. 19 lbs.; since the formation of the company, 46,121 tons 2 cwt. 2 qrs. 22 lbs.

SMELTING MANAGER'S REPORT.

The smelting operations for the half-year ending June 30, 1895, have been as follows:—The total quantity of ore smelted is 1863 tons 7 cwt. 2 qrs. 23 lbs., yielding 1261 tons 19 cwt. 1 qr. 12 lbs. of tin. Of this 1143 tons 19 cwt. 1 qr. 19 lbs., yielding 767 tons 14 cwt. 3 qrs. 2 lbs. of tin, was smelted on account of the company, and 719 tons 8 cwt. 1 qr. 4 lbs., yielding 494 tons 4 cwt. 2 qrs. 10 lbs. of tin, on public account. The average assay of the refined tin is 99.83 per cent., and the slag 5.3 per cent. The furnaces and plant are all in good working order.

MINING NOTES FROM JOHANNESBURG.

By H. BUSH, M.E.

Metropolitan Mine.

This is one of the most improved mines on the Rand, and during the next few months there will be a considerable increase in the returns. The lower levels have improved fully 4 dwts. in the assays.

Buffelsdoorn.

Owing to the Black reef opening out so rich, it is expected that there will be subsidiary companies floated to open up these series.

Benoni Gold Mines.

This is the plum of the year, and with 284 claims, and the Chimes and Kleinfontein reefs opened up, it will be one of the biggest mining propositions on the East Rand.

Chimes West.

Average assays of 25 dwts. are being obtained from 3 feet of ore. This mine is opening out even better than was expected.

Venterskroon Gold Mining Company.

Some very rich strikes are being made. The reef as it is opened up gives pannings of nearly 1 ounce per ton. They expect to cut the reef at a deeper level within a few weeks. This district generally is looking well.

Steyns.

The main shaft is to be started on the Deep Level block to open up the Main reef series.

Randfonteins.

It is thought that there will be ten subsidiary companies formed from this estate. The North Randfontein is the richest and cheapest of the group.

Vestas (Black Reef).

The reef on this property is very good, and the future prospects are assured.

Mr. Lewis also cables from Johannesburg as follows:—Anglo-French Exploration Company has succeeded in floating Benoni Mines. Claims 284; company formed with a capital of £250,000; working capital, £130,000. Has opened up Kleinfontein Chimes reefs. Also has succeeded in floating Kleinfontein Centrals, 163 claims. The mine will undoubtedly become a very valuable property.

TIN TICKETING.

A TICKETING for tin ores was held at Tabb's Hotel, Redruth on Tuesday, with the following result:—

VALUES OF ORES SOLD BY EACH MINE.

Mines.	Tons cwt.	Per ton.	Value.
Wheal Grenville	20 0	£41 5 0	£825 0 0
do	16 0	41 2 6	658 0 0
Carn Brea No. 1	15 0	32 15 0	491 5 0
do No. 1a	14 0	32 17 6	460 5 0
do No. 2	1 10	24 7 6	36 11 3
Dolcoath No. 1	15 0	39 12 6	594 7 6
do No. 1a	15 0	39 17 6	598 2 6
Tincroft	14 0	33 0 0	462 0 0
do	14 0	33 0 0	462 0 0
Wheal Bassett No. 1	25 0	41 7 6	1034 7 6
South Frances United No. 1	13 0	38 2 6	495 12 6
do No. 1a	12 0	38 5 0	459 0 0
East Pool a	16 0	36 5 0	580 0 0
do No. 2	1 10	16 12 6	24 18 9
West Kitty	13 0	41 7 6	537 17 6
Killfretch	12 0	37 2 6	445 10 6
Phoenix United No. 1	9 0	39 17 6	358 17 6
do No. 2	2 10	34 5 0	85 12 6
West Frances	11 0	37 10 0	412 10 0
Saint Agnes Beach	10 0	34 10 0	345 0 0
South Condurrow	7 0	41 7 6	289 12 6
	256 10		£9656 10 0

Average price per ton, £37 13s. 0d.

Total purchases:—Carvedras, 29 tons, £1121 7s. 6d.; Chyandor, 32 tons, £1193 2s. 6d.; Williams, 35 tons, £1328 8s. 9d.; Treorle, 35 tons, £1331 10s.; Redruth 12 tons, £477 10s.; Penpol, 76 tons, £2799; Cornish, 31½ tons, £1405 11s. 8d. Total—256½ tons, £9565 10s.

AVERAGE PRICES PER TON.

July 2	£36 15 0	Aug. 13	£37 1 0
July 16	36 9 9	Aug. 27	37 13 0
July 30	37 17 7		

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MISCELLANEOUS MEETINGS.

NORTH STAFFORDSHIRE-TRAMWAYS, LIMITED.

THE 29th ordinary general meeting of the North Staffordshire Tramways Company (Limited) was held on Tuesday, at the Guildhall Tavern, Gresham-street, E.C., Mr. W. J. CARRUTHERS-WAIN, A.I.C.E., presiding.

The SECRETARY (Mr. J. G. B. Elliot) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—With regard to the figures of the half-year, I may say we are not singular in not showing a good result. Our friends, the North Staffordshire Railway, are also suffering from a decreased dividend, and as an indication of the scarcity of trade in the district at the beginning of the year I may tell you that in the half-year they moved 170,000 less tons than in the corresponding half of last year. Then, again, they naturally, like we, met with difficulties in carrying on traffic in the face of one of the most severe winters, I suppose, which have ever been experienced. Under such circumstances you cannot diminish your service—at least you ought not to. You must keep faith with the public so far as you can, and although your traffic receipts are very much smaller, your expenses are not only on the ordinary scale, but have to be kept up on an extraordinary scale, in order to keep your line working. Had we been dealing with ordinary conditions, the increased mileage would have brought you a very large additional amount of money, with very little, if any, additional expense, except that which is necessary, owing to the increasing age of the line and the engines. The first duty of the directors must be to keep your line and rolling-stock in a first-class state of repair. If they did not endeavour to do that, as far as possible, they would have constant difficulties with the Board of Trade and the local authorities, and it is such difficulties that we are endeavouring to avoid, especially having regard to the fact that the seven years' steam licence expired in May last, and naturally we desire its renewal, and have to take all necessary measures and precautions to ensure the continuance of your traffic. Well, that we have done, and, I believe, successfully. Respecting the distribution of the profit, I do not suppose anyone will object to that. With reference to the vexed question of London, which has been so frequently before these meetings, I am very pleased to tell you that as a result of the amount of light thrown upon the subject during the proceedings of the Light Railway's Committee, of which, as President of the Tramways' Institute, I was a member, the Board of Trade are likely to meet the Longton Town Council, and little differences will be smoothed over by judicious consideration on both sides. The Longton lines will, I believe, before long, not only be allowed to be worked, but valuable extensions of them will be made by the corporation at their own expense, and I hope, having regard to the good relations that exist between us and the Longton Corporation, that we shall be able to work those lines for your profit. That will be a great satisfaction to me, seeing that so much of your capital has lain dormant there for so many years—in fact, at one time it was looked upon as hopelessly lost. If no other good comes out of the Light Railway's Committee, that, at any rate, will be something in your favour. Then I come to paragraph 6, which is perhaps the most important paragraph in the report. You can quite understand, speaking with all deference and all due respect to the constituted authorities, that they have naturally, and I am bound to say I do not think improperly, a desire, when they have an opportunity, to take advantage of it, at any rate, to some extent. The expiration of our steam licence in May last was an opportunity for them to say, "Now, although we are very well satisfied"—and that is what they did say—"with the manner in which you conduct steam traffic, yet steam traffic is not likely to go on for ever. We want you to take into your most serious consideration the question of the adoption of some improved motor upon these lines." Naturally, we said, in reply, that we are very well satisfied with steam as it is. Steam has afforded enormous convenience to the inhabitants of this and many other districts. In this district it has been worked with less complaint than in any other in the kingdom, and that it has been exceedingly well worked is testified by the fact that when the Tramways Institute of Great Britain and Ireland, which comprises some of the leading companies in the kingdom, visited Stoke-upon-Trent in April last, they expressed their unbounded satisfaction with the manner in which the steam tramway was conducted in the district. Be that as it may, a great many people consider that steam traction is a thing of the past, or will not long survive, and that other forms of traction must come to the front. Of course, there is no doubt, having regard to the severe gradients with which we have to contend in North Staffordshire, the only system which can possibly be adopted there would be either the cable, or electricity by means of overhead wires. So far as the cable system is concerned, the traffic is not great enough for that, and the curves are tremendous. Therefore the difficulties of working a cable on a single road would be exceedingly great, and the expense would be tremendous. Consequently the directors are forced to consider electricity by means of overhead wires. We, therefore, suggested to the Town Council that if they desired us to give up the use of steam and adopt electricity they should give us an extension of our lease in order to afford us time to recoup ourselves for laying down such an installation. We pointed out it was perfectly impossible that in the seven years or thereabouts that remained to the company now of the original 21 years for which that obsolete, and I might say, absolutely stupid Act of Parliament, known as the Tramways Act, 1870, granted the company powers, it would be impossible for anyone to advance money or undertake to work a line for a limited time like that. I am happy to say that the local authorities agree that if we do put up an installation of this character, they are prepared to extend our lease for a considerable period; or rather, to put it in a more technical way, they are prepared not to exercise their powers to purchase under the 43rd section of the Tramways Act, 1870, for a very much longer period than we at present enjoy. I may be wrong, but that I think is the best way in which to go to work with local authorities. They want something from you, and you naturally ask something from them, and if you can agree upon the principle I do not think there will be very much difficulty about the details. When a proper scheme is matured for the working of the line by electricity, and when all the necessary preliminary arrangements have been made by the local authority, and before anything is done which will commit you absolutely, you will be called together, and the fullest details will be laid before you, and your approval will be asked to any agreements which we propose to enter into. Whatever further steps are taken with regard to the extensions, before anything is done which would commit you in any way to them financially, or even in the improvement of the permanent way, your opinion will be asked, and you will be, as you always have been, taken into our fullest confidence, so that we shall be able to know that in what we are doing we have the assurance of your fullest support. Before I sit down I would like to say one word on a personal matter to which I will only allude in the briefest possible terms. There are men whose position sometimes even in a small way marks them out for personal attack. I allude to this simply because some attacks sometimes find their way into newspapers circulating in the locality which this line serves. To honest criticism from intelligent critics no one can possibly object. On the contrary, well-directed intelligent criticism is very useful. But I consider contemptuously the captious, cavilling criticisms of ignorant people. I beg to move the adoption of the report and accounts.

Mr. Alderman E. J. HAMMERSLEY, J.P., seconded the motion, which was carried after some discussion.

A dividend at the rate of 6 per cent. per annum on the preference shares and 3 per cent. per annum on the ordinary capital for the half-year was declared, and a cordial vote of thanks was passed to the Chairman, directors, secretary, manager, and staff.

CROYDON TRAMWAYS (LIMITED).

The eleventh ordinary general meeting of the Croydon Tramways Company was held on Tuesday, at the Guildhall Tavern, Mr. CARRUTHERS-WAIN presiding.

The SECRETARY (Mr. J. G. B. Elliot) read the notice convening the meeting.

The CHAIRMAN said: I beg to move the adoption of the report and accounts submitted to the meeting. It is a very gratifying fact that during the latter half of the half-year we were able to retrieve the loss that we made in traffic, in common with most other companies, during the severe winter, and to show an increase which I think, having regard to the smallness of our line and our traffic generally, is exceedingly satisfactory. (Applause.) As to the expenses, I hope you will be gratified to find that they show a slight diminution. Various small causes have been at work, but for which they would have been still lower; with these, however, it is scarcely necessary for me to detain you. It is satisfactory to find that the expenses do show a decrease. With regard to the new loop, that was authorised by your Provisional Order of last year, and it will be found of very great use in working the traffic on the Norwood-road. The Board of Trade, as you will observe by the report, have granted a renewal of our powers for a further period of a year for making the extension to Norbury. In the meantime I am happy to say that the London Tramways Company is gradually creeping down the hill from Brixton, and I have not the smallest doubt that before long they will gradually find their way to Norbury; and when our line is made to Norbury there will be a continuous line of tramway, about 13 miles long, right away from Westminster Bridge to South-end, Croydon, and in that way there will be a means of relieving the congested districts of London, and giving access to one of the most beautiful parts of Surrey to those who live cooped-up in Brixton, Wandsworth, and Battersea. There is just one little thing I ought to mention. I am sorry to say that the faintest touch of prosperity with a tramway immediately brings the assessment authorities down upon you, and your assessment has been somewhat considerable increased; but if on reflection we find that assessment, which has only recently been altered, is excessive, we shall naturally take proper measures to protect your interests, and appeal. One year we fought the question as hard as we could up to a certain point, but we have been unsuccessful until now, except that possibly the figures might have been worse than they really are. But you will observe that I re-echo the complaints made by the Chairmen of all railway and tramway companies—that we seem to be looked upon as proper victims for spoliation by the assessment authorities. With regard to the connecting link between the northern and southern portions of our line, I have the greatest hopes that that will be made within a few months. I do not wish to promise definitely, but I think a few months now will see that line made, and that ought to be a source of considerable profit to the company with very little additional expense. With respect to the profit, I am sure you will agree with me as to the advisability of a small company like this, where the difference between the revenue and working expenses is so small, following the precedent which I ventured to establish here some years ago, with the concurrence of my colleagues, of not making any distribution for the June half-year, but waiting until the end of the year, when we can take not only a retrospective glance at the results of the half-year, but also a prospective glance at what is likely to happen with regard to forage and other matters in the coming year, and can make up our minds what to do with the balance of profit on the year. I am quite sure there will not be any dissentient voice on that point. The review of past years' results is in the usual form, and shows a continuous improvement. The debentures are now all issued. I think it was mentioned last time that I took up the balance of them myself, the company being in want of money, and the directors being willing to let me have them at par. That shows I have a certain amount of confidence in the undertaking. (Applause.)

Mr. W. STANSFIELD seconded the motion, which was carried unanimously.

On the proposition of Mr. OHREN, a vote of thanks was given to the Chairman, directors, secretary, manager, and staff for their able management of the affairs of the company.

The CHAIRMAN, in acknowledging the compliment, said that it would be quite impossible to find a staff more devoted to their work than that of the company. (Hear, hear.)

The proceedings then terminated.

LONDON, DEPTFORD, AND GREENWICH TRAMWAYS (LIMITED).

The half-yearly ordinary meeting of the London, Deptford, and Greenwich Tramways Company was held at the Guildhall Tavern, on Tuesday, Mr. CARRUTHERS-WAIN presiding.

The SECRETARY (Mr. J. G. B. Elliot) read the notice convening the meeting.

The CHAIRMAN, in moving the adoption of the report and accounts, said that the half year, despite the exceedingly bad winter through which the company had passed, had not resulted unfavourably, inasmuch as they were able to show an increase of nearly £500 in their receipts. (Applause.) The expenditure, however, had increased, owing to a variety of circumstances, many unavoidable expenses having to be incurred to keep the line open, and a regular service running. It was gratifying to know that by reason of the decreased price of forage they were able to maintain their comparatively small staff of 240 horses at as low a figure as 8s. 2d. per week each—a result which he attributed in a large measure to the careful management of Mr. Paige, one of the directors, and Mr. Prior, the manager, who acted with him. As a natural consequence of the lines and cars getting older, they had had to spend more money upon them, in order to keep them in an efficient state of repair. If their cars were not kept in proper repair, they would not be passed by the police, and, therefore, they would not be allowed to run them for traffic; and similarly, if they did not keep their lines in an efficient state of repair they would have continuous accidents occurring. They might, therefore, look upon the increased expenditure on those two items as a kind of an insurance against claims for compensation. With reference to the omnibus traffic, he regarded that as very satisfactory, inasmuch as it acted as a feeder to their tramways, and thus increased the profits of the company generally. They had arrived at a period when the quinquennial re-valuation of property in the London district took place, and attempts were being made to put up the valuation of their line as being a profitable concern. Those attempts were naturally being resisted, as they had resisted successfully the London County Council's Valuation Bill, under which that body proposed to make their own valuations, and then be the judges in their own cause. He was sorry to say that the London County Council was in the speech of every tramway Chairman, very much like King Charles' head was in Mr. Dick's memorial in "David Copperfield"—it cropped up everywhere, and oftentimes in the most unexpected place. The London County Council had given them more anxiety and trouble, and had put them to more expense than it was possible for him either to imagine or to calculate. There was scarcely a suggestion made by the County Council which did not in some way affect the interests of tramway companies, and there was scarcely a project which they had formulated which would not in some way have damaged the interests of tramway companies, together with the interests of the general public. Let them take, for instance, the Bill recently promoted by the Council to enable that body to work all tramways, whether the Council leased the lines or not. In suggesting this they were attempting to over-ride the Standing Orders of both Houses of Parliament, and to obtain a Bill which would enable them to work, when they were unable to buy, all the tramways of London. He had been contradicted before, and he would probably be contradicted again, when he stated that municipal working meant municipal loss—it meant increased rates to the taxpayers and the putting into the hands of County Councils patronage which might be used injudiciously and to the detriment of good government. The County Council Bill managed, despite the strenuous opposition

of the tramway companies, to get through all its stages in the House of Commons, and eventually it reached the House of Lords, just when Parliament dissolved. That Bill consequently, in common with others, was hung-up. He devoutly wished it had not only been hung-up, but also strangled. (Laughter.) It would come up in the next session of Parliament at the stage in which it was left when the late Parliament dissolved—in other words, it would come before the Committee of the House of Lords to be heard on its merits, although, in his opinion, it had no merits nor any reason or right at the back of it. If the County Council were anxious to work the tramways, the proper time for them to introduce a Bill asking for powers would be when they failed to secure a tenant who would pay a reasonable rent, and who would secure to the ratepayers of London a reasonable return on the money invested. That was the present position of the law, and he considered it to be very fair, with this exception, that he thought there ought to be some over-ruling power. In the first place, when a tramway company had been compelled to sell its lines at the break-up prices which under Sir Frederick Bramwell's award were to be deemed the ruling prices, then the first people who ought to have the call of the lease were the company who owned the adjacent lines, or the remainder of the line of which that particular section formed a part. Failing an agreement on reasonable terms, the Board of Trade should step in and decide what reasonable terms between the parties were. He was quite convinced that under an arrangement such as this even-handed justice would be meted out to everybody, and the ratepayers would not be saddled with a loss, which under existing conditions was likely to be put upon them. Let them consider for a moment what happened the other day with regard to the lease of the London Street Tramways Company. This was a case where the company were compelled to pay a certain rent for the line. They replied that they could not pay that rent, nor could they give their employees a ten-hours day as prescribed by the lease unless a corresponding reduction was made in the wages of the employees. That was a logical objection, and even the tramway men themselves besought the County Council to leave them alone and let them settle their own terms, their own hours, and their own wages with their own masters. Then the County Council coolly proposed that any difference should be made good by an allowance in the rent, and that difference in the rent would, of course, have to be made up out of the rates. A more immoral financial suggestion he had never heard of. (Hear, hear.) That being the case, the company very properly pointed out that that could not be, and as a consequence the County Council had absolved the company from that clause in the lease, and the men were now going on in the same old way, and with the same old wages, and were very happy to be permitted to do so. It was possible that he would have the Glasgow Municipal Tramways thrown in his teeth. He was disinclined to trust the figures in the balance-sheet issued by the Glasgow Municipality as to the working of their tramways. Had their accounts been made out on the lines of an ordinary tramway company there would have been a very considerable difference in the colour of the Glasgow figures. This he was perfectly convinced of both from internal and from external evidence. Remarking that a misapprehension had arisen to the effect that the company had abandoned the whole of their proposed extensions, the Chairman pointed out that mainly owing to the action of the County Council itself they had been compelled to abandon only the St. James's-road line, which would have been a very valuable link in their system, giving access from the crowded districts south of the Old Kent-road by a much more direct line than that which existed at present to the Tower Bridge and also to London Bridge. The abandonment of the Bill only meant the abandonment of the St. James's-road line, and not of the Greenwich Extension, because under the Act of 1889, by which the Greenwich Extension was authorised, they had two years within which to make that line after a new street connecting Deptford with Greenwich had been made. That street had not yet been made, and, if he might judge by the supineness of the County Council in the matter, was not likely to be made for some time, so that they might remain perfectly easy about the Greenwich Extension. It would have been a very small and inexpensive matter for the County Council to have undertaken the St. James's-road extension, and it would have been a very great convenience to the teeming population south of the Thames, but as a consequence of the Council's action they had no option but to abandon the Bill after having incurred very considerable expense in promoting it. He was glad to say that he had received no complaint from any shareholder as to the condition of the company, with the exception of one who hailed from Manchester, and who expressed a desire that the directors should face a Manchester audience. The condition of the company, he ventured to say, was such that it reflected credit on all who had been connected with it, and on those who had dragged it from the verge of bankruptcy, and from a state of absolute insolvency to the position which it occupied at the present time. (Hear, hear.) The directors did not claim to be infallible, but they did maintain that whatever had been done by them had been done with a single eye to the benefit of the shareholders generally. With regard to the dividend, they did not recommend—in fact, he thought it would have been most unwise to have recommended—a bigger distribution of the profits for the half-year than 2 per cent. per annum on the preferred ordinary shares. At the end of the ensuing half-year they would be able to decide what they would do with the balance of profits—what they would write off for depreciation, and what amount they would set aside to reserve. (Applause.)

Mr. F. J. HORROCKS seconded the motion, which was carried unanimously.

In answer to a question, the CHAIRMAN said that the directors did not yet take the full amount of their fees, nor did they intend to until more prosperous times had arrived. (Hear, hear.)

On the motion of the CHAIRMAN, seconded by Mr. W. PERING PAIGE, a dividend at the rate of 2 per cent. per annum on the preferred ordinary shares was declared.

The proceedings concluded with a vote of thanks to the Chairman, directors, secretary, manager, and staff, on the motion of Mr. HARMAN, seconded by Mr. JARVIS.

GOLD FROM COAL.—According to a contemporary, analyses have been made of 13 coal samples taken from the chief Witwatersrand coal basin, comprising the Springs Colliery, Vogelfontein Colliery and Breakpan Colliery. Each sample consisted of a bag of 200 lbs. of coal, which was burnt separately, and the ashes of each of these bags were carefully analysed by a chemist. They produced from mere traces of gold to 9 dwts. 5 grains of gold per ton of coal. The mean between the extremes is 5 dwts., while the average of the 13 samples was upward of 3½ dwts. Similar researches are to be made on a much larger scale in Europe, in order to test the yield of gold by samples taken at 40 or 50 different places, and by several thorough analyses by different chemical methods, and the results will be known in not too long a time.

AUSTRALIAN ANTIMONY.—Hillgrove, in the Peel and Ural's mining district, produces the bulk of the antimony won in New South Wales, the total quantity for the year being 632 tons, valued at £2480. Of that amount the Eleanora Company produced 472 tons of smelted antimony, valued at £2080, and 3394 ounces of gold; the Hillgrove Antimony Mining Company, 160 tons, valued at £2400. The value of the antimony raised in the colony to the end of 1894 was about £160,000.

COAL IN FRANCE.—The extraction of coal in the French Department of the Pas-de-Calais in the first half of this year was 5,314,647 tons, as compared with 5,331,534 tons in the corresponding period of 1894. The extraction effected in the Department of the Nord in the first half of this year was 2,451,746 tons, as compared with 2,469,037 tons in the corresponding period of 1894. The combined output of the two Departments in the first half of this year accordingly amounted to 7,766,393 tons, as compared with 7,800,571 tons in the corresponding period of 1894, showing a decrease of 34,178 tons this year. The largest production was, as usual, effected by the Anzin mines.

NOTES FROM ANDALUCIA.

PAPER ON THE CUPREOUS PYRITES DEPOSITS OF ANDALUCIA AND ALGARVE.

RETROSPECTIVE AND PROSPECTIVE.

Extracts and Notes from Mining Operations and Reports on these during the past 25 years.

By WILLIAM GUTHRIE BOWIE.

(Continued from Page 1028)

NO doubt much depends upon the treatment adopted, or whether much has been exported as ore for sulphur and copper, whether a higher or lower return of copper is obtained, and what may yet be retained in the heaps in local treatment, either in a state that will not be recovered by our present treatment, or in that which will yet, if slowly, be obtained.

It would appear that besides this over-estimation of copper value already noted, there is another serious one in respect of what can really be obtained from the total contents of the ore in copper, and in order to show both the difficulties, and assist the remarks to be made under the headings of acquisition, development, and treatment, I will give a short relation of the returns from the best mine as to both quality and quantity of these ores, both as illustrating that the others are still worse in respect of these estimations, and because the returns from Rio Tinto are the most detailed and accurate relations obtainable for a large quantity of ore. The Rio Tinto Company shows an extraction of 22,253,771 tons of ore, estimated to contain 635,633 tons of copper, indicating an average of 2.822 per cent. Cu. The copper produced and sold amounts to 386,590 tons, leaving 249,043 tons to be accounted for, either as lost in the allowances and losses on sales, treatment in their works in England, and at the mines, or partly still existing in the heaps in treatment in Spain. The amount actually realised indicates an average of about 1.716 per cent. Cu for the total extraction of ore, leaving a further 1.006 per cent. Cu as lost, or partly yet to be recovered. If, however, we take the returns from the exported ores and those from local treatment, each apart, there is evidently a loss on that obtained from the exported ores, and which is not recoverable, but shows a higher average for this ore for copper obtained than that yielded as yet by the ore in treatment at the mines. The ore exported amounts to 6,335,455 tons, and has returned 135,857 tons of copper, equal to 2.144 per cent. Cu as the average yield of their export ore, and 0.678 per cent. Cu below the general average given for the total extraction. This shows a loss of at least 42,954 tons, or (say) 43,000 tons of copper on the ore exported. In some instances the exported ore has been poor in copper, and hence this class has been for sulphur alone, but it is only lately any quantity of poor copper ores has been shipped and hardly alters this loss; on the contrary, this should increase it, as the general average includes this ore also, and lowers the same in proportion, while the copper content in the poor or pyrites ores is generally not paid, but is entirely lost; hence it may be assumed that the ore exported would be much richer than the general average for the total extraction from the mine, and that sent to local treatment would be equally somewhat below this general average.

This is more evident by the actual returns of copper from local treatment where 16,031,497 tons of ore have produced 250,733 tons of copper, thus showing an average of 1.564 per cent. Cu, or, compared with the general average of 2.822 Cu, that, there are yet 1.258 per cent. Cu or 191,676 to 192,000 tons of copper still in the heaps, or partly lost, of which the 43,000 tons lost on that exported forms a part and reduces this reserve of copper accordingly. Besides the ore sent to local treatment there has been much cupreous material as schists, impregnated with copper rocks also treated, while the old Government heaps of ore and copper liquors from the mine, and rain washings of the ore exposed in the open-cast and similar works have gone to form a part of the 250,733 tons of copper produced at the mines, all which would tend to indicate that the copper in the ore sent to local treatment has still further losses, or a greater amount equal to that produced from these sources still to be recovered. In the absence of estimations of the ore in local treatment showing the real value of this in copper, but seeing that processes have been used estimated to recover all the copper and sufficient time has elapsed to attain the maximum yield of copper by calcination of natural vitriolisation and cementation for copper precipitate, it is evident that this ore sent to local treatment is much poorer in copper than the general average given for the total amount extracted, hence greater losses on the ore exported. It is somewhat difficult to arrive at a proper estimate of how much of this copper still in the heaps in local treatment can be profitably obtained, but seeing that calcination reduces much to a condition that will not yield its copper (by the present processes in use) with profit, and that there is a constant loss owing to the necessity of allowing the copper liquors to leave the canals and other cementation tanks and works, with a good trace of copper in solution, and others from heavy rains, while losses of precipitate both in collecting and shipping up to sale are large, which, together with the Customs and uses of smelters, are inevitable. We may also surmise that that which can yet be attained will be far below the estimated content, and so far that reduced to date from all sources is the only real practical guide as to a fairly quick and actual possibly profitable return from this class of pyrites for all the mines—viz., 1.716 per cent. Cu during the past 25 years. (See works of J. H. Collins, F.G.S., &c., and particularly *The Mining Journal*, 1893, page 1907, &c.) as to losses in calcination, liquors, &c.

By the above there is evidence that the former estimates have not been realised, and that the average calculated should have been 1.716 per cent. Cu in place of 3 per cent. Cu, while the excessive amount of ore sent to local treatment and the increase of export of pyrites are evidences that the increased quantities now being extracted are poorer in copper, in a much greater proportion than was the case at the higher levels, and 1.564 per cent. Cu is now nearer the general average of copper returns of the present day for all these mines.

The returns from the other mines indicate similar results, and there are instances of mines, with so badly prepared plant for local treatment, and such indifferent knowledge of metallurgy, that the ore extracted has only produced a mere trifle of its copper content, the other portion having been swept away into the streams, or so badly calcined as to become one mass of scoria; thus this indifferent management also goes to confirm the higher value in copper when these mines were reopened, for, with all these drawbacks, far higher results were obtained on the average than is now the case, with greater care, preparation, and science.

(To be Continued.)

PROVINCIAL SHARE MARKETS.

THE CORNISH MINE SHARE MARKET.

MR. SAMUEL JOHN DAVEY, Dealer in Cornish Mine Shares, Redruth, Cornwall, reports under date of August 29 (12 o'clock) as follows:—Our market has been quiet this week, without much alteration, and there is not much doing to-day. Following are quotations:—Blue Hills, 1s. 6d. to 2s. 6d.; Carn Brea, 2 to 2½; Dolcoath, 18s. 6d. to 19s. 6d.; East Pool, 4 to 4½; Killifreth, 11s. to 13s.; South Crofty, 2 to 2½; South Wheal Frances, 1 to 1½; Tincroft, 8½ to 9½; West Frances, 2 to 1; West Kitty, 5 to 5½; Wheal Bassett, 2½ to 3; Wheal Grenville, 13½ to 13¾; Wheal Kitty (St. Agnes), 2½ to 3; Polberro, 2 to 1; Dolcoath (partly paid), 9½ to 1s. 6d. prem.

MR. MICHAEL WILLIAMS BAWDEN, Mining and Assaying Offices, Liskeard, Cornwall, writes (August 29) as follows:—The mining market is without any special improvement. The tin standard is firmer, and advanced £1 during the week, but prices remain much the same. Closing prices:—Blue Hills, 2s. 6d. to 3s.; Carn Brea, 2 to 2½; Devon Consols, 30s. to 31s. 6d.; Dolcoath, 20s. to 20. 6d., fully paid; ditto, partly paid, 1s. to 1s. 6d.; Drakevalley, 2s. to 2s. 6d.; East Pool, 4 to 4½; Killifreth, 11s. to 12s. 6d.; Levant, 5 to 5½; Polberro, 16s. to 17s. 6d.; South Crofty, 12s. 6d. to 14s.; South Frances, 1½ to 1¾; Tincroft, 8½ to 8¾; West Frances, 1 to 1½; West Kitty, 4½ to 5; Wheal Bassett, 2½ to 2¾; Wheal Grenville, 13 to 13½; Wheal Kitty, 9s. to 10s.

MESSRS. ABBOTT AND WICKETT, Stock and Share Brokers and Mining Share Dealers, Redruth, write under date of August 29:—There has been some buying in Dolcoath this week, and the price has improved to 20s. for the fully-paid and 1s. 9d. to 2s. 3d. for the partly-paid, and a good many have changed hands, but most other shares have been neglected. Quotations herewith:—Blue Hills, 2s. to 2½; Carn Brea, 2 to 2½; Dolcoath (fully-paid), 19s. 6d. to 20s. 6d.; ditto (partly-paid), 1s. to 2s. prem.; East Pool, 3½ to 4½; Killifreth, 10s. to 12s.; Polberro, 2 to 1; South Crofty, 2 to 2½; South Frances, 1 to 1½; Tincroft, 8½ to 8¾; West Frances, 1 to 1½; West Kitty, 4½ to 5; Wheal Bassett, 2½ to 2¾; Wheal Grenville, 13½ to 13¾; Wheal Kitty, 2 to 2½; Tin, 65½.

MANCHESTER.

MESSRS. JOSEPH R. and W. P. BAINES, Stock and Share Brokers, Queen's Chambers, 7, Market-street, write August 29 (noon):—There is a distinct turn on the railway markets to record this week. Up to writing, all changes (notwithstanding that prices are not always at the best of the week) are all better, and some of the advances are very distinct in amount. Whilst home rails show numerous changes, many of which are well over 1 per cent, and Mexican Railway issues moved to about same extent, the chief features of rise in the week are found in Canadian and American, and more particularly in the last named. In Americans, Denver Preference stand foremost with rise of 5½, and several others show advances of 3 or 3½, and the rest between 1 and 2½. Trunk issues range higher, from 3 in First Preference to 4 in Ordinary, whilst Canada Pacifics are 3½ better. Coming to daily changes, Friday's not found home rails firm, and where changed to better prices. In Canadian, Trunk issues were steady at the opening, and improved in small degree right down to the close. Canadian Pacifics not altered. Americans, with Denver Preferred and Milwaukee to the fore, firm throughout. Saturday, as usual, nothing of consequence to record. On Monday the demand for home rails was continued, and higher prices resulted. Americans, again led by Milwaukee, firm throughout. Grand Trunk issues amongst Canadians, also Mexican Railway issues, a little off latest best prices. On Tuesday, after the carrying-over had been got out of the way, buyers were in the ascendant in all departments of rails, but mostly so in Americans. This established higher figures all round, with (save for, perhaps, here and there some little exception), last prices the best of the day. Yesterday the "boom" continued. As regards home rails the "heavy" lines were prominent. In Americans Denver Preference were exceptional, rising 3½. Canadian issues and Mexicans, too, improved again. The improvement did not last quite the day out, as later some little of the best was, to be noticed in many instances. This morning home rails opened very much like last night's close. Americans mostly better at opening, but they were not quite all so. In the presence of the activity on mining shares and in rails of all departments, the several departments of minor markets, spoken of as though not purely miscellaneous have been somewhat shorn of attention, and as for prices they need no more mention than the detailed record below. Consols are 3-16 higher on the week. What changes (few) there are in Colonials are in favour of holders. Home corporation stocks very little altered, but that little contradictory. Foreigners better in many instances, the only adverse change being ½ down in Uruguay Three and a Half per Cent. Other departments but little altered. See list below:—

CONSOLS.—Higher, 3-16.
COLONIAL STOCKS, &c.—Higher. Cape of Good Hope Registered, 1; New South Wales Inscribed, ½.

CORPORATION STOCKS AND DEBENTURES.—Higher. Blackburn Three and a Half per Cent., 1; Lower, Southport Three and a Half per Cent., 2; ditto, Three per Cent., 1.

FOREIGNERS.—Higher. Argentine Six per Cent., 1½; ditto, Five per Cent., ½; Brazilian, Four and a Half per Cent., ½; ditto, Four per Cent., 1; Egyptian United, 1½; Italian Rentes, ½; Mexican Six per Cent., 1½; Spanish Four per Cent., ½.—Lower. Uruguay Three and a Half per Cent., ½.

BANKS.—Higher. Bank of Liverpool, ½; Imperial Ottoman, ½.—Lower. Consolidated, 1-16; W. D. and Manchester and Salford ½.

MINES.—Higher. Chartered, 3-16; Consolidated Gold Fields, 2½; De Beers, 12; Londonderry, 3-16.—Lower. Rio Tinto, 1-16.

INSURANCE.—Higher. Equitable Fire, 6d.; Thames and Mersey, 1-16d.—Lower. Liverpool, London, and Globe, ½; London and Lancashire Insurance, ½; Palatine, 1-16.

COAL, IRON, &c.—Higher. Holcove Vaughan, £20 paid, 3-16; ditto, £12 paid, ½; Abbe Vale, ½; Sheepbridge A, ½; Snavely C, ½.

TELEGRAPHS AND TELEPHONES.—Higher. Eastern Extensions ½; National Telephone, 1-16.

BREWERS.—Higher. Tinsmith's, ½; Yates' Preference, ½.—Lower. Allsopp's, 1½; Hardy's, ½; Threlfall's, 1.

MISCELLANEOUS.—Higher. Bell's Asbestos, ½; Bovril, ½; Bryant and May, ½; Chadwick's, ½; Henry's, 1-16 to ½; Keilner's, ½; Manchester Carriage C, ½; United Alkali, 9-16; Liverpool United Gas, A, 2; Manchester Trust, 1s. to 2s.; Suez Canal, 2.—Lower: Pacific Steam, ½; Ship Canal ordinary, 1-16; ditto Preference, 1-16 to ½.

LATER (4 P.M.).—Home rails are irregular to-day—some up, some down, but no violent change on either side. The quick rise in Americans of the past few days has brought in some sellers to realise, and consequently prices have fallen away a bit to-day on 'not figures, compared with yesterday's close. Canadians are not altered to any notable extent, nor are Mexicans.

SCOTCH MINING AND INDUSTRIAL COMPANIES SHARE MARKETS.

STIRLING.—MR. J. GRANT MACLEAN, Stockbroker and Ironbroker (August 29), writes:—During the past week there has been a large amount of business done, notwithstanding the holiday season and the intervening account. Transactions entered into are for September 12 account.

In shares of coal, iron, and steel companies the principal alteration is an advance in Steel Company shares from 65s. to 75s. African Coal are at 7s. 9d., Marbella 52s. 9d., and Niddrie 42s.

In shares of copper concerns a fair amount of business has been

done, and prices are firm in sympathy with the market for the metal. Thariss have touched 105s. 6d., Arizona 65s. 9d., and Tinto 18 3-16, but are now all a little under these prices. Mason are at 61s. 3d. Dolcoath Tin, 19s. to 21s.

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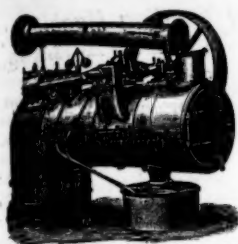
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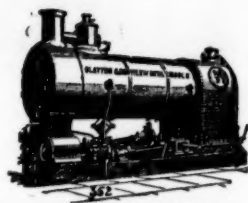
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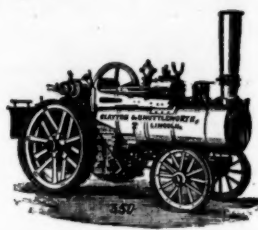
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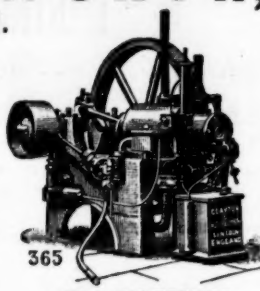
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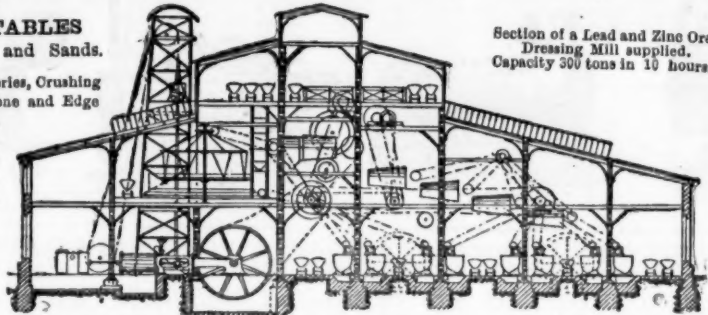
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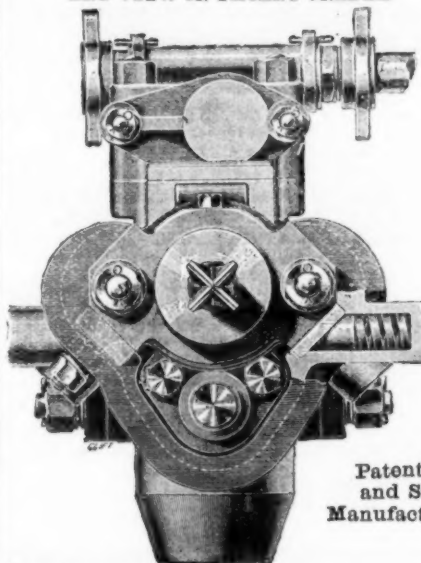
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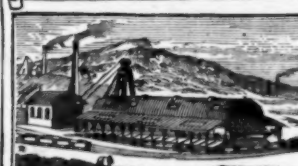
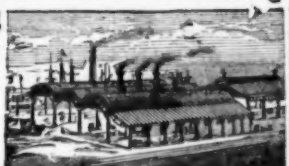
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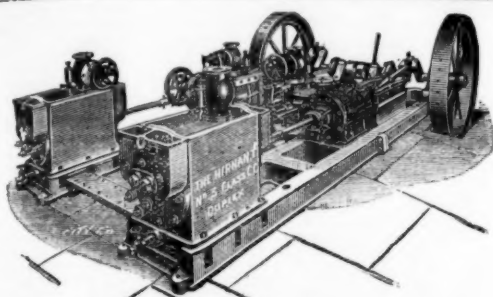
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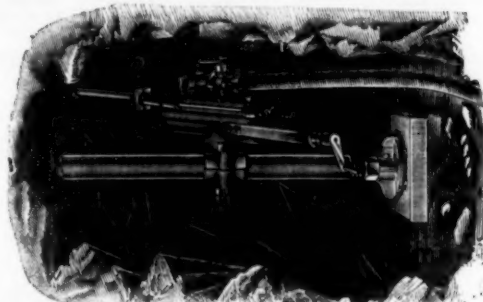
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Passing 2½ in. ring, according to character and hardness of material.

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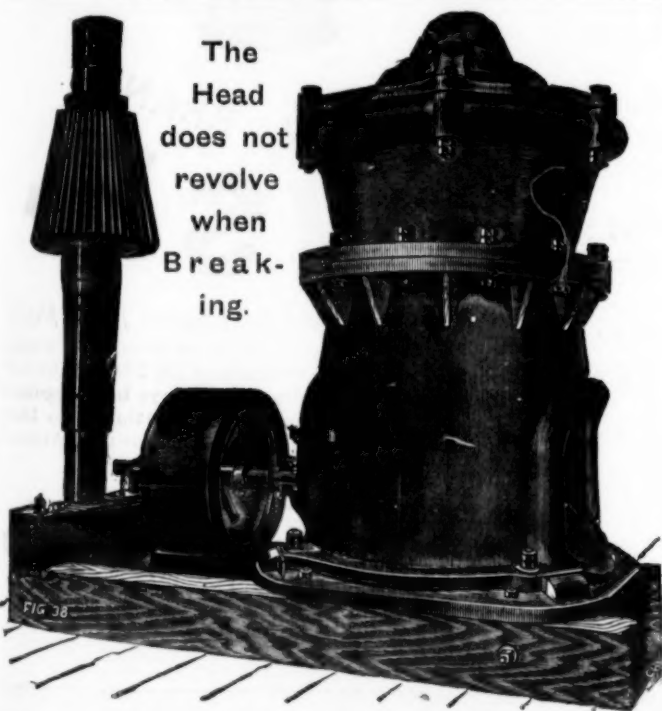
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Fitted with Patent Reversible Cubing and Crushing Jaws in Five Sections, and with Surfaced Rocks, requiring no White Metal in lining. Crucible Cast Steel Levers and Toggle Cushions, Brass or Gun Metal Bearings throughout.

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The Fine Crusher was had from you in August last is an excellent pulverizer, and rapidly reduces hard material to a fine powder.

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"It is with the greatest satisfaction that we write these few lines in order to acquaint you that the 12x3 Pulverizer you provided us with, has quite fully given the results you represented to us, completely reducing our material to an impalpable powder at one operation. Should you refer any one to us we should have much pleasure in recommending the machine."

"I have great pleasure in bearing testimony to the merits and capabilities of your patent combined fine crusher and sieving apparatus. I have tried it on a variety of ores and minerals, and it pulverizes them with equal success. You can put in a small paving stone and bring it out like flour."

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"Our experience is that the motion and mechanical arrangements of your machine are the best for pulverizing that we have ever met with."

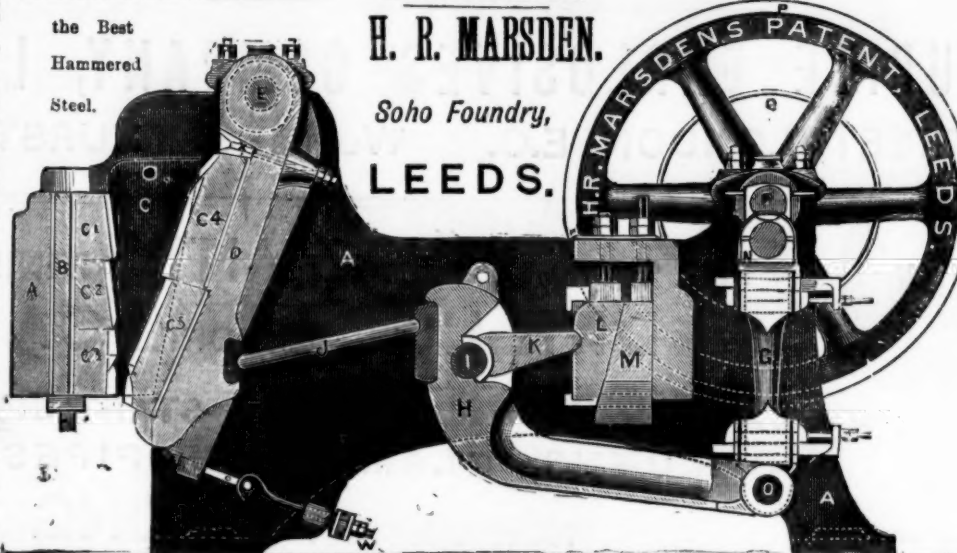
"The reports from our mines regarding the working of your Fine Crusher (20x5) recently supplied are very favourable, although we cannot quote you exact figures. On being put into position it was tried by hand, with the result that it made short work of the biggest pieces of ore we put into the hopper. You might say how long you would take to deliver another of the same size."

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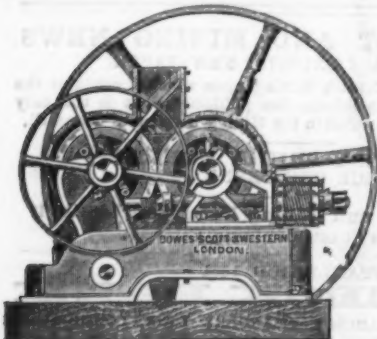
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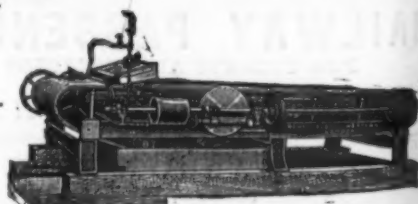
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